

# ICP-MS METALS Technical Review Checklist

(200.8, 6020)

For Internal Use Only

Site Name:

Dimock

WO#:

1203001

Analyst:

BLOSTND

Date given to Reviewer:

3/15/12

Matrix (circle): Solid / Aqueous / Other

SOP R3QA116-021511 / R3QA155-021511

Program (circle): Superfund / RCRA / WPD (NPDES) / SDWA / Other:

## The signature below indicates the following:

- This data meets the needs of the customer according to the request.
- The analysis was performed as per the SOP, or exceptions documented.
- All documentation needed to recreate the analyses has been reviewed.
- Data Review status set to Peer Reviewed in Element.

Peer Reviewer signature

Jeday

Date accepted

3/15/12

If any data for this case is stored with another case file, give Site Name and WO#

## Peer Reviewer Completes Section Below:

### General:

Raw data is identified with sample ID's, site name, WO#, analyst name, date of analysis.

YES    NO    N/A    Comments

✓ \_\_\_\_\_

### Quality Control:

Initial calibration  $\geq$  .995

✓ \_\_\_\_\_

Meas. PK Width .6 to .7 amu

✓ \_\_\_\_\_

Exact Mass & Meas. Mass within 1 amu

✓ \_\_\_\_\_

Internal Stds 60-125%

✓ \_\_\_\_\_

SCV  $\pm$  10%;

✓ \_\_\_\_\_

CCV  $\pm$  10%, 10% frequency, and end of run;

(If CCV fails at  $<\pm 15\%$ , can keep the data but have to recalibrate before continuing, or qualify data.)

✓ \_\_\_\_\_

LCV  $\pm$  50% ;

✓ \_\_\_\_\_

IBL  $<$  [Reporting limit], analyzed with each CCV;

✓ \_\_\_\_\_

BS (LCS)  $\pm$  15%

✓ \_\_\_\_\_

SRM within vendor acceptance limits;

\_\_\_\_\_ C \_\_\_\_\_

BLK  $<$  [Reporting limit];

(if  $>$  Reporting Limit and  $>1/10$  of sample - must qualify)

✓ \_\_\_\_\_

MS [ $\pm$ 30%] unless spike is  $<30\%$  of sample value;

✓ \_\_\_\_\_

RPDs from DUP  $\leq$  20% aqueous & 35% soils;

✓ \_\_\_\_\_

Sample results < CAL or within documented linear range;

\_\_\_\_\_

**Calculations/Report:**

Calculations and transcriptions checked.

\_\_\_\_\_

Element Draft Report reviewed.

\_\_\_\_\_

Deviations and problems documented.

\_\_\_\_\_

**NOTE:** When soils are being reported, the *sample qualifier* 'dry' or 'wet' must be entered so that it appears in the header of the Element report. This will signify that the data was report 'wet weight' or 'dry weight' as appropriate.

Additional Comments by Peer Reviewer:

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**Analyst Ensures that the Data Case File is Complete and Accurate:**

- Bench sheet  
 Calibration report  
 Instrument run log  
 Standard/Reagent Prep log  
 Daily Performance Report

- TV sheets  
 Element Peer Review report  
 Raw data  
 Data status set to analyzed  
 Tune Report

Additional Comments by Analyst on data issues:

Report Pb <2. LCV failed at 0.4 ppb,  
USE BS for V SCV.

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11 = FB21

12 = HU050

**On-Demand Data Checklist**  
*(used in addition to routine TRC)*  
*For Internal Use Only*

Parameter: U

Procedure/Method/Reference: 200.8

Site Name: Dimoff WO#: 1203001  
Analyst: EL05HRC

**The signature below indicates the following:**

- The analysis was performed as per the On-Demand requirements below.

Peer Reviewer signature JAD

Date accepted 3/15/12

**Peer Reviewer Completes Section Below:**

This is a special request which falls outside our routine protocols. Therefore, these samples were analyzed and the quality control (QC) were evaluated based on the "On Demand" criteria. These protocols include all the QC checks as per routine analyses plus special verification of the performance of the analytical method at the reported quantitation limit/s. These protocols are specified in the EPA Region III OASQA Laboratory Quality Manual, current version.

<u>Quality Control:</u>	<u>YES</u>	<u>NO</u>	<u>N/A</u>	<u>Comments</u>
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A written procedure or reference must be available for the method being performed and referenced in the narrative. If the method to be performed is unique, the procedures must be fully documented. ✓

Calibration of the instrumentation or analytical procedure must be according to the method or procedure. ✓

Calibration verified by analysis of second source standard (SCV, SRM), if available. Concentration must be in the range of the calibration. Results must be within the method, procedure, client or in-house limits. ✓

Analysis of one method blank (BLK) with each batch. Ideally, the results should be less than the expected quantitation levels set by the method, procedure, or in-house requirements. ✓

Analysis of one matrix spike (MS) with each batch. For samples or parameters which do not lend themselves to matrix spiking, a BS or SRM sample must be analyzed. Results of spikes must be within the method, procedure, client or in-house limits. ✓

Analysis of one duplicate analyses (DUP) or a quality control sample such as an SRM or BS with each batch. If duplicate analyses is not possible, e.g., insufficient sample quantity, a quality control sample must be analyzed in duplicate, if available. Results of duplicate analyses must be ✓

within the method, procedure, client or in-house limits.

At least one blank spike (BS) must be carried through the entire method and analyzed with each batch. The concentration of the BS should be at the quantitation level or at the level of the expected sample results, if known. Results of the BS must be within the method, procedure, client or in-house limits.

Any additional quality control items, such as surrogates, internal standards, etc., which the referenced method or procedure requires should be analyzed. Results must be within the method or, procedure limits.

The analyst must document the impact on the usability of the reported data by applying qualifier codes if applicable and including a summary in the case file.

**Additional Comments:**

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 3 Environmental Science Center  
Office of Analytical Services and Quality Assurance  
701 Mapes Road  
Fort Meade, Maryland 20755-5350



DRAFT

Site Name: Dimock Residential Groundwater

Project #: DAS R33937

**Report Narrative**

1203001 DRAFT 03 16 12 813

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Office of Analytical Services and Quality Assurance  
701 Mapes Road  
Fort Meade, Maryland 20755-5350



DRAFT

Site Name: Dimock Residential Groundwater

Project #: DAS R33937

## Report Narrative

The EPA Region 3 Laboratory's Quality System is NELAP accredited. The National Environmental Laboratory Accreditation Program (NELAP) is a voluntary environmental laboratory accreditation association of State and Federal agencies.

### **General Notes:**

#### **Metals Analysis Note:**

Uranium, strontium, lithium, tin and titanium were analyzed as an on-demand analysis.

The quantitation limits for several samples for tin were qualified estimated "UJ" due to a quality control sample outside of acceptance limits.

The quantitation limit for uranium for sample 1203001-12 was qualified estimated "UJ" due to the absence of a second source quality control sample.

#### **Glycols by HPLC/MS/MS Note: EDIT**

Samples were analyzed for diethylene glycol (DiG) (CAS# 111-46-6), triethylene glycol (TriG) (112-27-6), tetraethylene glycol (TEG) (112-60-7), 2-butoxyethanol (2-Bu) (111-76-2) and 2-methoxyethanol (109-86-4) by HPLC/MS/MS (inst id: TQD-LCMSMS) on a Waters Atlantis dC18 3um 2.1 x 150mm column (s/n- 0141301481).

An HPLC/MS/MS method does not currently exist for these analytes. ASTM D 7731-11 and EPA SW-846 Methods 8000C and 8321 were followed for method development and QA/QC limits where applicable. All applicable OASQA On Demand QA/QC protocols were followed.

The aqueous samples were injected without extraction onto the HPLC/MS/MS system

Refer to notes in the case file for additional information regarding the analysis

#### **SVOAs Analysis Note:**

All samples were extracted by EPA SW-846 Method 3520C followed by analysis using EPA SW-846 Method 8270D. Refer to notes in case file for additional information regarding the analysis.

Results for sample 1203001-08 are suspect. Although, all QC and lab blanks are acceptable for sample 1203001-08, low levels of certain compounds detected indicate possible glassware contamination.

The multiple TICs found in sample 1203001-01 are likely due to extraction of a pH strip that fell in the jar and was not removed.

For this project one additional compounds is added to the SVOC analysis; 1-methylnaphthalene.

For all sample, quantitation limits for 2,4-dinitrophenol is elevated due to zero percent recovery in the low-spike quality control check (BS1). 2,4-dinitrophenol is qualified UJ due to exceeding calibration limits. For all sample, quantitation limits for pentachlorophenol (35%) and 4,6-dinitro-2-methylphenol (27%) are qualified "UJ" due to low percent recovery in the low-spike quality control check (BS1). Results for most of the mid-level spike quality control check (BS2) are within acceptance limits; therefore, quantitation limits are raised to the mid-level value. In the report, only 16 compounds are reported for blank spike quality control check samples. Quality control information about the additional spiked compounds is available in the case file.

For 1203001-04, the matrix spike duplicate exceeded quality control requirements for hexachloroethane and is qualified "UJ".



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Office of Analytical Services and Quality Assurance  
101 Mapes Road  
Fort Meade, Maryland 20755-5350



# DRAFT

**Site Name:** Dimock Residential Groundwater

**Project #:** DAS R33937

## Report Narrative

Results for a limited number of parameters found in all samples have been qualified "B" because of contamination found in either the method blank, field blank, or equipment blank.

### **VOA Analysis Note:**

Acrylonitrile was analyzed on-demand using CLP equivalent methodology. This analyte does not appear in the data tables or the QC summary and all data for this compound is summarized here. Acrylonitrile was not detected in any of the samples above a quantitation limit of 2 ug/L. A four point curve was analyzed (2, 5, 10 and 20 ug/L). The samples were preserved to a pH<2 with HCl. A low level second source blank spike analyzed at a concentration of 2 ug/L had a recovery of 99%. A mid level second source blank spike analyzed at a concentration of 10 ug/L had a recovery of 101%. Matrix spike/matrix duplicate analysis was performed for sample 1203001-04. Matrix spike recoveries were 102% and 94%.

2-Chloroethylvinyl ether is not included in the analysis. 2-chloroethylvinyl ether breaks down in acidified samples.

### **TSS Analysis Note:**

All required instrument QC was run and was within the required criteria.

### **TDS Analysis Note:**

All required instrument QC was run and was within the required criteria.

### **Nitrite/Nitrate and Total Nitrogen Analysis Note: EDIT**

Samples were run as an on-demand analysis.

### **Anions Analysis Note: EDIT**

All required instrument QC was run and was within the required criteria.



## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 3 Environmental Science Center

## Office of Analytical Services and Quality Assurance

701 Mapes Road  
Fort Meade, Maryland 20755-5350**DRAFT**

Site Name: Dimock Residential Groundwater

Project #: DAS R33937

## ANALYTICAL REPORT FOR SAMPLES

Station ID	Laboratory ID	Matrix	Date Sampled	Date Received
FB19	1203001-01	Water	3/05/12 09:36	3/06/12 11:12
HW60	1203001-02	Drinking Water	3/05/12 12:25	3/06/12 11:12
HW56	1203001-04	Drinking Water	3/05/12 16:54	3/07/12 11:00
FB20	1203001-06	Water	3/06/12 14:00	3/08/12 10:45
HW61-P	1203001-07	Drinking Water	3/06/12 16:00	3/08/12 10:45
HW61z	1203001-08	Drinking Water	3/06/12 15:42	3/08/12 10:45
HW61	1203001-09	Drinking Water	3/06/12 15:42	3/08/12 10:45
FB21	1203001-11	Water	3/08/12 13:38	3/09/12 12:05
HW50	1203001-12	Drinking Water	3/08/12 15:09	3/09/12 12:05



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Region 3 Environmental Science Center

## Office of Analytical Services and Quality Assurance

701 Mapes Road  
Fort Meade, Maryland 20755-5350

Site Name: Dimock Residential Groundwater

Project #: DAS R33937

Station ID: FB19

Lab ID: 1203001-01

Sample Matrix: Water

Date Collected: 03/05/2012

## Total Metals

## Targets

Analyte	Result ug/L	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
Aluminum	U		30.0	2.5	03/12/12	03/14/12 13:00	EPA 200.8/R3QA116
Antimony	U		2.0	2.5	03/12/12	03/14/12 13:00	EPA 200.8/R3QA116
Arsenic	U		1.0	2.5	03/12/12	03/14/12 13:00	EPA 200.8/R3QA116
Barium	U		10.0	2.5	03/12/12	03/14/12 13:00	EPA 200.8/R3QA116
Beryllium	U		1.0	2.5	03/12/12	03/14/12 13:00	EPA 200.8/R3QA116
Boron	U		50.0	1	03/12/12	03/13/12 10:23	EPA 200.7/R3QA159
Cadmium	U		1.0	2.5	03/12/12	03/14/12 13:00	EPA 200.8/R3QA116
Calcium	U		500	1	03/12/12	03/13/12 10:23	EPA 200.7/R3QA159
Chromium	U		2.0	2.5	03/12/12	03/14/12 13:00	EPA 200.8/R3QA116
Cobalt	U		1.0	2.5	03/12/12	03/14/12 13:00	EPA 200.8/R3QA116
Copper	U		2.0	2.5	03/12/12	03/14/12 13:00	EPA 200.8/R3QA116
Iron	U		100	1	03/12/12	03/13/12 10:23	EPA 200.7/R3QA159
Lead	U		2.0	2.5	03/12/12	03/14/12 13:00	EPA 200.8/R3QA116
Lithium	U		200	1	03/12/12	03/13/12 10:23	EPA 200.7/R3QA159
Magnesium	U		500	1	03/12/12	03/13/12 10:23	EPA 200.7/R3QA159
Manganese	U		1.0	2.5	03/12/12	03/14/12 13:00	EPA 200.8/R3QA116
Nickel	U		1.0	2.5	03/12/12	03/14/12 13:00	EPA 200.8/R3QA116
Potassium	U		2000	1	03/12/12	03/13/12 10:23	EPA 200.7/R3QA159
Selenium	U		5.0	2.5	03/12/12	03/14/12 13:00	EPA 200.8/R3QA116
Silver	U		1.0	2.5	03/12/12	03/14/12 13:00	EPA 200.8/R3QA116
Sodium	U		1000	1	03/12/12	03/13/12 10:23	EPA 200.7/R3QA159
Strontium	U		200	1	03/12/12	03/13/12 10:23	EPA 200.7/R3QA159
Thallium	U		1.0	2.5	03/12/12	03/14/12 13:00	EPA 200.8/R3QA116
Tin	U		200	1	03/12/12	03/13/12 10:23	EPA 200.7/R3QA159
Titanium	U		200	1	03/12/12	03/13/12 10:23	EPA 200.7/R3QA159
Uranium	U		1.0	2.5	03/12/12	03/14/12 13:00	EPA 200.8/R3QA116
Vanadium	U		5.0	2.5	03/12/12	03/14/12 13:00	EPA 200.8/R3QA116
Zinc	U		2.0	2.5	03/12/12	03/14/12 13:00	EPA 200.8/R3QA116



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Region 3 Environmental Science Center

## Office of Analytical Services and Quality Assurance

701 Mapes Road  
Fort Meade, Maryland 20751-5350

Site Name: Dimock Residential Groundwater

Project #: DAS R33937

Station ID: HW60

Lab ID: 1203001-02

Sample Matrix: Drinking Water

Date Collected: 03/05/2012

## Total Metals

## Targets

Analyte	Result ug/L	Flags	Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
Aluminum	U			30.0	2.5	03/12/12	03/14/12 13:10	EPA 200.8/R3QA116
Antimony	U			2.0	2.5	03/12/12	03/14/12 13:10	EPA 200.8/R3QA116
Arsenic	9.3			1.0	2.5	03/12/12	03/14/12 13:10	EPA 200.8/R3QA116
Barium	1650			200	1	03/12/12	03/13/12 10:27	EPA 200.7/R3QA159
Beryllium	U			1.0	2.5	03/12/12	03/14/12 13:10	EPA 200.8/R3QA116
Boron	U			50.0	1	03/12/12	03/13/12 10:27	EPA 200.7/R3QA159
Cadmium	U			1.0	2.5	03/12/12	03/14/12 13:10	EPA 200.8/R3QA116
Calcium	29800			500	1	03/12/12	03/13/12 10:27	EPA 200.7/R3QA159
Chromium	U			2.0	2.5	03/12/12	03/14/12 13:10	EPA 200.8/R3QA116
Cobalt	U			1.0	2.5	03/12/12	03/14/12 13:10	EPA 200.8/R3QA116
Copper	3.0			2.0	2.5	03/12/12	03/14/12 13:10	EPA 200.8/R3QA116
Iron	754			100	1	03/12/12	03/13/12 10:27	EPA 200.7/R3QA159
Lead	U			2.0	2.5	03/12/12	03/14/12 13:10	EPA 200.8/R3QA116
Lithium	47.7			25.0	1	03/12/12	03/13/12 10:27	EPA 200.7/R3QA159
Magnesium	7490			500	1	03/12/12	03/13/12 10:27	EPA 200.7/R3QA159
Manganese	217			1.0	2.5	03/12/12	03/14/12 13:10	EPA 200.8/R3QA116
Nickel	U			1.0	2.5	03/12/12	03/14/12 13:10	EPA 200.8/R3QA116
Potassium	U			2000	1	03/12/12	03/13/12 10:27	EPA 200.7/R3QA159
Selenium	U			5.0	2.5	03/12/12	03/14/12 13:10	EPA 200.8/R3QA116
Silver	U			1.0	2.5	03/12/12	03/14/12 13:10	EPA 200.8/R3QA116
Sodium	20300			1000	1	03/12/12	03/13/12 10:27	EPA 200.7/R3QA159
Strontium	865			200	1	03/12/12	03/13/12 10:27	EPA 200.7/R3QA159
Thallium	U			1.0	2.5	03/12/12	03/14/12 13:10	EPA 200.8/R3QA116
Tin	U			200	1	03/12/12	03/13/12 10:27	EPA 200.7/R3QA159
Titanium	U			200	1	03/12/12	03/13/12 10:27	EPA 200.7/R3QA159
Uranium	U			1.0	2.5	03/12/12	03/14/12 13:10	EPA 200.8/R3QA116
Vanadium	U			5.0	2.5	03/12/12	03/14/12 13:10	EPA 200.8/R3QA116
Zinc	2.6			2.0	2.5	03/12/12	03/14/12 13:10	EPA 200.8/R3QA116



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Office of Analytical Services and Quality Assurance

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701 Mapes Road  
Fort Meade, Maryland 20755-5350

Site Name: Dimock Residential Groundwater

Project #: DAS R33937

Station ID: FB20

Lab ID: 1203001-06

Sample Matrix: Water

Date Collected: 03/06/2012

## Total Metals

## Targets

Analyte	Result ug/L	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
Aluminum	U		30.0	2.5	03/12/12	03/14/12 13:26	EPA 200.8/R3QA116
Antimony	U		2.0	2.5	03/12/12	03/14/12 13:26	EPA 200.8/R3QA116
Arsenic	U		1.0	2.5	03/12/12	03/14/12 13:26	EPA 200.8/R3QA116
Barium	U		10.0	2.5	03/12/12	03/14/12 13:26	EPA 200.8/R3QA116
Beryllium	U		1.0	2.5	03/12/12	03/14/12 13:26	EPA 200.8/R3QA116
Boron	U		50.0	1	03/12/12	03/13/12 10:41	EPA 200.7/R3QA159
Cadmium	U		1.0	2.5	03/12/12	03/14/12 13:26	EPA 200.8/R3QA116
Calcium	U		500	1	03/12/12	03/13/12 10:41	EPA 200.7/R3QA159
Chromium	U		2.0	2.5	03/12/12	03/14/12 13:26	EPA 200.8/R3QA116
Cobalt	U		1.0	2.5	03/12/12	03/14/12 13:26	EPA 200.8/R3QA116
Copper	U		2.0	2.5	03/12/12	03/14/12 13:26	EPA 200.8/R3QA116
Iron	U		100	1	03/12/12	03/13/12 10:41	EPA 200.7/R3QA159
Lead	U		2.0	2.5	03/12/12	03/14/12 13:26	EPA 200.8/R3QA116
Lithium	U		25.0	1	03/12/12	03/13/12 10:41	EPA 200.7/R3QA159
Magnesium	U		500	1	03/12/12	03/13/12 10:41	EPA 200.7/R3QA159
Manganese	U		1.0	2.5	03/12/12	03/14/12 13:26	EPA 200.8/R3QA116
Nickel	U		1.0	2.5	03/12/12	03/14/12 13:26	EPA 200.8/R3QA116
Potassium	U		2000	1	03/12/12	03/13/12 10:41	EPA 200.7/R3QA159
Selenium	U		5.0	2.5	03/12/12	03/14/12 13:26	EPA 200.8/R3QA116
Silver	U		1.0	2.5	03/12/12	03/14/12 13:26	EPA 200.8/R3QA116
Sodium	U		1000	1	03/12/12	03/13/12 10:41	EPA 200.7/R3QA159
Strontium	U		200	1	03/12/12	03/13/12 10:41	EPA 200.7/R3QA159
Thallium	U		1.0	2.5	03/12/12	03/14/12 13:26	EPA 200.8/R3QA116
Tin	U		200	1	03/12/12	03/13/12 10:41	EPA 200.7/R3QA159
Titanium	U		200	1	03/12/12	03/13/12 10:41	EPA 200.7/R3QA159
Uranium	U		1.0	2.5	03/12/12	03/14/12 13:26	EPA 200.8/R3QA116
Vanadium	U		5.0	2.5	03/12/12	03/14/12 13:26	EPA 200.8/R3QA116
Zinc	U		2.0	2.5	03/12/12	03/14/12 13:26	EPA 200.8/R3QA116



## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 3 Environmental Science Center  
Office of Analytical Services and Quality Assurance

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Site Name: Dimock Residential Groundwater

Project #: DAS R33937

Station ID: HW56

Lab ID: 1203001-04

Sample Matrix: Drinking Water

Date Collected: 03/05/2012

## Total Metals

## Targets

Analyte	Result ug/L	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
Aluminum	U		30.0	2.5	03/12/12	03/14/12 13:21	EPA 200.8/R3QA116
Antimony	U		2.0	2.5	03/12/12	03/14/12 13:21	EPA 200.8/R3QA116
Arsenic	1.5		1.0	2.5	03/12/12	03/14/12 13:21	EPA 200.8/R3QA116
Barium	531		200	1	03/12/12	03/13/12 10:38	EPA 200.7/R3QA159
Beryllium	U		1.0	2.5	03/12/12	03/14/12 13:21	EPA 200.8/R3QA116
Boron	U		50.0	1	03/12/12	03/13/12 10:38	EPA 200.7/R3QA159
Cadmium	U		1.0	2.5	03/12/12	03/14/12 13:21	EPA 200.8/R3QA116
Calcium	22600		500	1	03/12/12	03/13/12 10:38	EPA 200.7/R3QA159
Chromium	U		2.0	2.5	03/12/12	03/14/12 13:21	EPA 200.8/R3QA116
Cobalt	U		1.0	2.5	03/12/12	03/14/12 13:21	EPA 200.8/R3QA116
Copper	2.4		2.0	2.5	03/12/12	03/14/12 13:21	EPA 200.8/R3QA116
Iron	171		100	1	03/12/12	03/13/12 10:38	EPA 200.7/R3QA159
Lead	U		2.0	2.5	03/12/12	03/14/12 13:21	EPA 200.8/R3QA116
Lithium	30.5		25.0	1	03/12/12	03/13/12 10:38	EPA 200.7/R3QA159
Magnesium	3550		500	1	03/12/12	03/13/12 10:38	EPA 200.7/R3QA159
Manganese	90.7		1.0	2.5	03/12/12	03/14/12 13:21	EPA 200.8/R3QA116
Nickel	U		1.0	2.5	03/12/12	03/14/12 13:21	EPA 200.8/R3QA116
Potassium	U		2000	1	03/12/12	03/13/12 10:38	EPA 200.7/R3QA159
Selenium	U		5.0	2.5	03/12/12	03/14/12 13:21	EPA 200.8/R3QA116
Silver	U		1.0	2.5	03/12/12	03/14/12 13:21	EPA 200.8/R3QA116
Sodium	10600		1000	1	03/12/12	03/13/12 10:38	EPA 200.7/R3QA159
Strontium	369		200	1	03/12/12	03/13/12 10:38	EPA 200.7/R3QA159
Thallium	U		1.0	2.5	03/12/12	03/14/12 13:21	EPA 200.8/R3QA116
Tin	U		200	1	03/12/12	03/13/12 10:38	EPA 200.7/R3QA159
Titanium	U		200	1	03/12/12	03/13/12 10:38	EPA 200.7/R3QA159
Uranium	1.0		1.0	2.5	03/12/12	03/14/12 13:21	EPA 200.8/R3QA116
Vanadium	U		5.0	2.5	03/12/12	03/14/12 13:21	EPA 200.8/R3QA116
Zinc	U		2.0	2.5	03/12/12	03/14/12 13:21	EPA 200.8/R3QA116



## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 3 Environmental Science Center

## Office of Analytical Services and Quality Assurance

701 Mapes Road

Fort Meade, Maryland 20755-5350



Site Name: Dimock Residential Groundwater

Project #: DAS R33937

Station ID: HW61-P

Lab ID: 1203001-07

Sample Matrix: Drinking Water

Date Collected: 03/06/2012

## Total Metals

## Targets

Analyte	Result ug/L	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
Aluminum	U		30.0	2.5	03/12/12	03/14/12 13:31	EPA 200.8/R3QA116
Antimony	U		2.0	2.5	03/12/12	03/14/12 13:31	EPA 200.8/R3QA116
Arsenic	U		1.0	2.5	03/12/12	03/14/12 13:31	EPA 200.8/R3QA116
Barium	73.1		10.0	2.5	03/12/12	03/14/12 13:31	EPA 200.8/R3QA116
Beryllium	U		1.0	2.5	03/12/12	03/14/12 13:31	EPA 200.8/R3QA116
Boron	U		50.0	1	03/12/12	03/13/12 10:45	EPA 200.7/R3QA159
Cadmium	U		1.0	2.5	03/12/12	03/14/12 13:31	EPA 200.8/R3QA116
Calcium	32500		500	1	03/12/12	03/13/12 10:45	EPA 200.7/R3QA159
Chromium	U		2.0	2.5	03/12/12	03/14/12 13:31	EPA 200.8/R3QA116
Cobalt	U		1.0	2.5	03/12/12	03/14/12 13:31	EPA 200.8/R3QA116
Copper	46.7		2.0	2.5	03/12/12	03/14/12 13:31	EPA 200.8/R3QA116
Iron	U		100	1	03/12/12	03/13/12 10:45	EPA 200.7/R3QA159
Lead	U		2.0	2.5	03/12/12	03/14/12 13:31	EPA 200.8/R3QA116
Lithium	U		25.0	1	03/12/12	03/13/12 10:45	EPA 200.7/R3QA159
Magnesium	6990		500	1	03/12/12	03/13/12 10:45	EPA 200.7/R3QA159
Manganese	U		1.0	2.5	03/12/12	03/14/12 13:31	EPA 200.8/R3QA116
Nickel	1.1		1.0	2.5	03/12/12	03/14/12 13:31	EPA 200.8/R3QA116
Potassium	U		2000	1	03/12/12	03/13/12 10:45	EPA 200.7/R3QA159
Selenium	U		5.0	2.5	03/12/12	03/14/12 13:31	EPA 200.8/R3QA116
Silver	U		1.0	2.5	03/12/12	03/14/12 13:31	EPA 200.8/R3QA116
Sodium	16800		1000	1	03/12/12	03/13/12 10:45	EPA 200.7/R3QA159
Strontium	U		200	1	03/12/12	03/13/12 10:45	EPA 200.7/R3QA159
Thallium	U		1.0	2.5	03/12/12	03/14/12 13:31	EPA 200.8/R3QA116
Tin	U		200	1	03/12/12	03/13/12 10:45	EPA 200.7/R3QA159
Titanium	U		200	1	03/12/12	03/13/12 10:45	EPA 200.7/R3QA159
Uranium	U		1.0	2.5	03/12/12	03/14/12 13:31	EPA 200.8/R3QA116
Vanadium	U		5.0	2.5	03/12/12	03/14/12 13:31	EPA 200.8/R3QA116
Zinc	11.0		2.0	2.5	03/12/12	03/14/12 13:31	EPA 200.8/R3QA116



## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 3 Environmental Science Center

## Office of Analytical Services and Quality Assurance

**DRAFT**701 Mapes Road  
Fort Meade, Maryland 20755-5350**Site Name:** Dimock Residential Groundwater**Project #:** DAS R33937**Station ID:** HW61z**Lab ID:** 1203001-08**Sample Matrix:** Drinking Water**Date Collected:** 03/06/2012**Total Metals****Targets**

Analyte	Result ug/L	Flags	Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
Aluminum	U			30.0	2.5	03/12/12	03/14/12 13:36	EPA 200.8/R3QA116
Antimony	U			2.0	2.5	03/12/12	03/14/12 13:36	EPA 200.8/R3QA116
Arsenic	U			1.0	2.5	03/12/12	03/14/12 13:36	EPA 200.8/R3QA116
Barium	75.1			10.0	2.5	03/12/12	03/14/12 13:36	EPA 200.8/R3QA116
Beryllium	U			1.0	2.5	03/12/12	03/14/12 13:36	EPA 200.8/R3QA116
Boron	U			50.0	1	03/12/12	03/13/12 10:56	EPA 200.7/R3QA159
Cadmium	U			1.0	2.5	03/12/12	03/14/12 13:36	EPA 200.8/R3QA116
Calcium	33000			500	1	03/12/12	03/13/12 10:56	EPA 200.7/R3QA159
Chromium	U			2.0	2.5	03/12/12	03/14/12 13:36	EPA 200.8/R3QA116
Cobalt	U			1.0	2.5	03/12/12	03/14/12 13:36	EPA 200.8/R3QA116
Copper	22.4			2.0	2.5	03/12/12	03/14/12 13:36	EPA 200.8/R3QA116
Iron	U			100	1	03/12/12	03/13/12 10:56	EPA 200.7/R3QA159
Lead	U			2.0	2.5	03/12/12	03/14/12 13:36	EPA 200.8/R3QA116
Lithium	U			25.0	1	03/12/12	03/13/12 10:56	EPA 200.7/R3QA159
Magnesium	7200			500	1	03/12/12	03/13/12 10:56	EPA 200.7/R3QA159
Manganese	U			1.0	2.5	03/12/12	03/14/12 13:36	EPA 200.8/R3QA116
Nickel	1.2			1.0	2.5	03/12/12	03/14/12 13:36	EPA 200.8/R3QA116
Potassium	U			2000	1	03/12/12	03/13/12 10:56	EPA 200.7/R3QA159
Selenium	U			5.0	2.5	03/12/12	03/14/12 13:36	EPA 200.8/R3QA116
Silver	U			1.0	2.5	03/12/12	03/14/12 13:36	EPA 200.8/R3QA116
Sodium	16400			1000	1	03/12/12	03/13/12 10:56	EPA 200.7/R3QA159
Strontium	U			200	1	03/12/12	03/13/12 10:56	EPA 200.7/R3QA159
Thallium	U			1.0	2.5	03/12/12	03/14/12 13:36	EPA 200.8/R3QA116
Tin	U	UJ		200	1	03/12/12	03/13/12 10:56	EPA 200.7/R3QA159
Titanium	U			200	1	03/12/12	03/13/12 10:56	EPA 200.7/R3QA159
Uranium	U			1.0	2.5	03/12/12	03/14/12 13:36	EPA 200.8/R3QA116
Vanadium	U			5.0	2.5	03/12/12	03/14/12 13:36	EPA 200.8/R3QA116
Zinc	16.9			2.0	2.5	03/12/12	03/14/12 13:36	EPA 200.8/R3QA116



## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 3 Environmental Science Center  
Office of Analytical Services and Quality Assurance701 Mapes Road  
Fort Meade, Maryland 20755-5350

Site Name: Dimock Residential Groundwater

Project #: DAS R33937

Station ID: HW61

Lab ID: 1203001-09

Sample Matrix: Drinking Water

Date Collected: 03/06/2012

## Total Metals

## Targets

Analyte	Result ug/L	Flags	Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
Aluminum	U			30.0	2.5	03/12/12	03/14/12 13:41	EPA 200.8/R3QA116
Antimony	U			2.0	2.5	03/12/12	03/14/12 13:41	EPA 200.8/R3QA116
Arsenic	U			1.0	2.5	03/12/12	03/14/12 13:41	EPA 200.8/R3QA116
Barium	68.4			10.0	2.5	03/12/12	03/14/12 13:41	EPA 200.8/R3QA116
Beryllium	U			1.0	2.5	03/12/12	03/14/12 13:41	EPA 200.8/R3QA116
Boron	U			50.0	1	03/12/12	03/13/12 11:00	EPA 200.7/R3QA159
Cadmium	U			1.0	2.5	03/12/12	03/14/12 13:41	EPA 200.8/R3QA116
Calcium	31900			500	1	03/12/12	03/13/12 11:00	EPA 200.7/R3QA159
Chromium	U			2.0	2.5	03/12/12	03/14/12 13:41	EPA 200.8/R3QA116
Cobalt	U			1.0	2.5	03/12/12	03/14/12 13:41	EPA 200.8/R3QA116
Copper	20.5			2.0	2.5	03/12/12	03/14/12 13:41	EPA 200.8/R3QA116
Iron	U			100	1	03/12/12	03/13/12 11:00	EPA 200.7/R3QA159
Lead	U			2.0	2.5	03/12/12	03/14/12 13:41	EPA 200.8/R3QA116
Lithium	U			25.0	1	03/12/12	03/13/12 11:00	EPA 200.7/R3QA159
Magnesium	7040			500	1	03/12/12	03/13/12 11:00	EPA 200.7/R3QA159
Manganese	U			1.0	2.5	03/12/12	03/14/12 13:41	EPA 200.8/R3QA116
Nickel	1.0			1.0	2.5	03/12/12	03/14/12 13:41	EPA 200.8/R3QA116
Potassium	U			2000	1	03/12/12	03/13/12 11:00	EPA 200.7/R3QA159
Selenium	U			5.0	2.5	03/12/12	03/14/12 13:41	EPA 200.8/R3QA116
Silver	U			1.0	2.5	03/12/12	03/14/12 13:41	EPA 200.8/R3QA116
Sodium	16100			1000	1	03/12/12	03/13/12 11:00	EPA 200.7/R3QA159
Strontium	U			200	1	03/12/12	03/13/12 11:00	EPA 200.7/R3QA159
Thallium	U			1.0	2.5	03/12/12	03/14/12 13:41	EPA 200.8/R3QA116
Tin	U	UJ		200	1	03/12/12	03/13/12 11:00	EPA 200.7/R3QA159
Titanium	U			200	1	03/12/12	03/13/12 11:00	EPA 200.7/R3QA159
Uranium	U			1.0	2.5	03/12/12	03/14/12 13:41	EPA 200.8/R3QA116
Vanadium	U			5.0	2.5	03/12/12	03/14/12 13:41	EPA 200.8/R3QA116
Zinc	15.5			2.0	2.5	03/12/12	03/14/12 13:41	EPA 200.8/R3QA116



## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 3 Environmental Science Center

## Office of Analytical Services and Quality Assurance

701 Mapes Road  
Fort Meade, Maryland 20755-5350

DRAFT

Site Name: Dimock Residential Groundwater

Project #: DAS R33937

Station ID: FB21

Lab ID: 1203001-11

Sample Matrix: Water

Date Collected: 03/08/2012

## Total Metals

## Targets

Analyte	Result ug/L	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
Aluminum	U		30.0	2.5	03/12/12	03/14/12 13:51	EPA 200.8/R3QA116
Antimony	U		2.0	2.5	03/12/12	03/14/12 13:51	EPA 200.8/R3QA116
Arsenic	U		1.0	2.5	03/12/12	03/14/12 13:51	EPA 200.8/R3QA116
Barium	U		10.0	2.5	03/12/12	03/14/12 13:51	EPA 200.8/R3QA116
Beryllium	U		1.0	2.5	03/12/12	03/14/12 13:51	EPA 200.8/R3QA116
Boron	U		50.0	1	03/12/12	03/13/12 11:07	EPA 200.7/R3QA159
Cadmium	U		1.0	2.5	03/12/12	03/14/12 13:51	EPA 200.8/R3QA116
Calcium	U		500	1	03/12/12	03/13/12 11:07	EPA 200.7/R3QA159
Chromium	U		2.0	2.5	03/12/12	03/14/12 13:51	EPA 200.8/R3QA116
Cobalt	U		1.0	2.5	03/12/12	03/14/12 13:51	EPA 200.8/R3QA116
Copper	U		2.0	2.5	03/12/12	03/14/12 13:51	EPA 200.8/R3QA116
Iron	U		100	1	03/12/12	03/13/12 11:07	EPA 200.7/R3QA159
Lead	U		2.0	2.5	03/12/12	03/14/12 13:51	EPA 200.8/R3QA116
Lithium	U		25.0	1	03/12/12	03/13/12 11:07	EPA 200.7/R3QA159
Magnesium	U		500	1	03/12/12	03/13/12 11:07	EPA 200.7/R3QA159
Manganese	U		1.0	2.5	03/12/12	03/14/12 13:51	EPA 200.8/R3QA116
Nickel	U		1.0	2.5	03/12/12	03/14/12 13:51	EPA 200.8/R3QA116
Potassium	U		2000	1	03/12/12	03/13/12 11:07	EPA 200.7/R3QA159
Selenium	U		5.0	2.5	03/12/12	03/14/12 13:51	EPA 200.8/R3QA116
Silver	U		1.0	2.5	03/12/12	03/14/12 13:51	EPA 200.8/R3QA116
Sodium	U		1000	1	03/12/12	03/13/12 11:07	EPA 200.7/R3QA159
Strontium	U		200	1	03/12/12	03/13/12 11:07	EPA 200.7/R3QA159
Thallium	U		1.0	2.5	03/12/12	03/14/12 13:51	EPA 200.8/R3QA116
Tin	U	UJ	200	1	03/12/12	03/13/12 11:07	EPA 200.7/R3QA159
Titanium	U		200	1	03/12/12	03/13/12 11:07	EPA 200.7/R3QA159
Uranium	U		1.0	2.5	03/12/12	03/14/12 13:51	EPA 200.8/R3QA116
Vanadium	U		5.0	2.5	03/12/12	03/14/12 13:51	EPA 200.8/R3QA116
Zinc	U		2.0	2.5	03/12/12	03/14/12 13:51	EPA 200.8/R3QA116



## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 3 Environmental Science Center  
Office of Analytical Services and Quality Assurance701 Mapes Road  
Fort Meade, Maryland 20755-5350

Site Name: Dimock Residential Groundwater

Project #: DAS R33937

Station ID: HW50

Lab ID: 1203001-12

Sample Matrix: Drinking Water

Date Collected: 03/08/2012

## Total Metals

## Targets

Analyte	Result ug/L	Flags	Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
Aluminum	U			30.0	2.5	03/12/12	03/15/12 13:56	EPA 200.8/R3QA116
Antimony	U			2.0	2.5	03/12/12	03/15/12 13:56	EPA 200.8/R3QA116
Arsenic	1.9			1.0	2.5	03/12/12	03/15/12 13:56	EPA 200.8/R3QA116
Barium	238			10.0	2.5	03/12/12	03/15/12 13:56	EPA 200.8/R3QA116
Beryllium	U			1.0	2.5	03/12/12	03/15/12 13:56	EPA 200.8/R3QA116
Boron	U			50.0	1	03/12/12	03/13/12 11:11	EPA 200.7/R3QA159
Cadmium	U			1.0	2.5	03/12/12	03/15/12 13:56	EPA 200.8/R3QA116
Calcium	30200			500	1	03/12/12	03/13/12 11:11	EPA 200.7/R3QA159
Chromium	U			2.0	2.5	03/12/12	03/15/12 13:56	EPA 200.8/R3QA116
Cobalt	U			1.0	2.5	03/12/12	03/15/12 13:56	EPA 200.8/R3QA116
Copper	U			2.0	2.5	03/12/12	03/15/12 13:56	EPA 200.8/R3QA116
Iron	U			100	1	03/12/12	03/13/12 11:11	EPA 200.7/R3QA159
Lead	U			2.0	2.5	03/12/12	03/15/12 13:56	EPA 200.8/R3QA116
Lithium	U			25.0	1	03/12/12	03/13/12 11:11	EPA 200.7/R3QA159
Magnesium	8330			500	1	03/12/12	03/13/12 11:11	EPA 200.7/R3QA159
Manganese	27.9			1.0	2.5	03/12/12	03/15/12 13:56	EPA 200.8/R3QA116
Nickel	U			1.0	2.5	03/12/12	03/15/12 13:56	EPA 200.8/R3QA116
Potassium	U			2000	1	03/12/12	03/13/12 11:11	EPA 200.7/R3QA159
Selenium	U			5.0	2.5	03/12/12	03/15/12 13:56	EPA 200.8/R3QA116
Silver	U			1.0	2.5	03/12/12	03/15/12 13:56	EPA 200.8/R3QA116
Sodium	10100			1000	1	03/12/12	03/13/12 11:11	EPA 200.7/R3QA159
Strontium	1020			200	1	03/12/12	03/13/12 11:11	EPA 200.7/R3QA159
Thallium	U			1.0	2.5	03/12/12	03/15/12 13:56	EPA 200.8/R3QA116
Tin	U	UJ		200	1	03/12/12	03/13/12 11:11	EPA 200.7/R3QA159
Titanium	U			200	1	03/12/12	03/13/12 11:11	EPA 200.7/R3QA159
Uranium	1.2	UJ		1.0	2.5	03/12/12	03/15/12 13:56	EPA 200.8/R3QA116
Vanadium	U			5.0	2.5	03/12/12	03/15/12 13:56	EPA 200.8/R3QA116
Zinc	U			2.0	2.5	03/12/12	03/15/12 13:56	EPA 200.8/R3QA116



## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 3 Environmental Science Center

## Office of Analytical Services and Quality Assurance

701 Mapes Road  
Fort Meade, Maryland 20755-5350

Site Name: Dimock Residential Groundwater

Project #: DAS R33937

QC Data  
Total Metals

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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## Batch BC21203 - Metals Water Prep

Blank (BC21203-BLK1)      Prepared: 03/12/12 10:38      Analyzed: 03/14/12 12:50

Antimony	U	2.0	ug/L
Arsenic	U	1.0	"
Barium	U	10.0	"
Beryllium	U	1.0	"
Cadmium	U	1.0	"
Chromium	U	2.0	"
Cobalt	U	1.0	"
Copper	U	2.0	"
Lead	U	1.0	"
Manganese	U	1.0	"
Nickel	U	1.0	"
Selenium	U	5.0	"
Silver	U	1.0	"
Thallium	U	1.0	"
Vanadium	U	5.0	"
Zinc	U	2.0	"
Aluminum	U	30.0	"
Uranium	U	1.0	"

Blank (BC21203-BLK2)      Prepared: 03/12/12 10:38      Analyzed: 03/13/12 10:16

Calcium	U	500	ug/L
Iron	U	100	"
Magnesium	U	500	"
Potassium	U	2000	"
Sodium	U	1000	"
Barium	U	200	"
Boron	U	50.0	"
Lithium	U	25.0	"
Strontium	U	200	"
Tin	U	200	"
Titanium	U	200	"



## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 3 Environmental Science Center  
Office of Analytical Services and Quality Assurance  
701 Mapes Road  
Fort Meade, Maryland 20755-5350



Site Name: Dimock Residential Groundwater

Project #: DAS R33937

**QC Data**  
**Total Metals**

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Notes
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## Batch BC21203 - Metals Water Prep

LCS (BC21203-BS1)	Prepared: 03/12/12 10:38	Analyzed: 03/14/12 12:55
Antimony	54.1183	2.0 ug/L
Arsenic	50.7513	1.0 "
Barium	200.931	10.0 "
Beryllium	5.14209	1.0 "
Cadmium	4.85153	1.0 "
Chromium	52.7012	2.0 "
Cobalt	53.7673	1.0 "
Copper	54.0380	2.0 "
Lead	51.0658	1.0 "
Manganese	52.5564	1.0 "
Nickel	52.1921	1.0 "
Selenium	49.6623	5.0 "
Silver	5.68818	1.0 "
Thallium	49.3160	1.0 "
Vanadium	51.5711	5.0 "
Zinc	51.6573	2.0 "
Aluminum	215.914	30.0 "
Uranium	51.6572	1.0 "

LCS (BC21203-BS2)	Prepared: 03/12/12 10:38	Analyzed: 03/13/12 10:19
Calcium	9843.20	500 ug/L
Iron	5047.33	100 "
Magnesium	10394.8	500 "
Potassium	20853.2	2000 "
Sodium	9691.60	1000 "
Barium	1972.54	200 "
Boron	513.817	50.0 "
Lithium	549.034	25.0 "
Strontium	503.189	200 "
Tin	498.456	200 "
Titanium	525.781	200 "



## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 3 Environmental Science Center

## Office of Analytical Services and Quality Assurance

DRAFT  
701 Mapes Road  
Fort Meade, Maryland 20755-5350

Site Name: Dimock Residential Groundwater

Project #: DAS R33937

QC Data  
Total Metals

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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## Batch BC21203 - Metals Water Prep

Duplicate (BC21203-DUP1)	Source: 1203001-02	Prepared: 03/12/12 10:38	Analyzed: 03/14/12 13:05	
Antimony	0.024162	2.0	ug/L	0.025025
Arsenic	9.60953	1.0	"	9.29011
Barium	1730.41	10.0	"	1714.48
Beryllium	U	1.0	"	0.006260
Cadmium	U	1.0	"	U
Chromium	U	2.0	"	U
Cobalt	0.054892	1.0	"	0.053888
Copper	3.10982	2.0	"	3.02668
Lead	U	1.0	"	U
Manganese	214.964	1.0	"	216.841
Nickel	0.684742	1.0	"	0.845140
Selenium	0.300910	5.0	"	0.287040
Silver	U	1.0	"	U
Thallium	U	1.0	"	U
Vanadium	0.365662	5.0	"	0.455582
Zinc	2.93056	2.0	"	2.60657
Aluminum	2.26438	30.0	"	2.96237
Uranium	0.010888	1.0	"	0.006488
Duplicate (BC21203-DUP2)	Source: 1203001-02	Prepared: 03/12/12 10:38	Analyzed: 03/13/12 10:30	
Calcium	29062.4	500	ug/L	29848.9
Iron	739.691	100	"	754.164
Magnesium	7360.94	500	"	7487.38
Potassium	1331.16	2000	"	1354.07
Sodium	19929.4	1000	"	20306.4
Barium	1616.31	200	"	1653.15
Boron	48.5396	50.0	"	49.8622
Lithium	44.4354	25.0	"	47.6915
Strontium	847.778	200	"	864.608
Tin	3.52864	200	"	U
Titanium	U	200	"	U



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Region 3 Environmental Science Center

## Office of Analytical Services and Quality Assurance

701 Mapes Road

Fort Meade, Maryland 20755-5350



Site Name: Dimock Residential Groundwater

Project #: DAS R33937

QC Data  
Total Metals

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Notes
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## Batch BC21203 - Metals Water Prep

Matrix Spike (BC21203-MS1)	Source: 1203001-09	Prepared: 03/12/12 10:38	Analyzed: 03/14/12 13:46
Antimony	53.3540	2.0 ug/L	50.000 0.014818 107 70-130
Arsenic	48.0864	1.0 "	50.000 U 96 70-130
Barium	260.787	10.0 "	200.00 68.4151 96 70-130
Beryllium	5.49421	1.0 "	5.0000 0.013345 110 70-130
Cadmium	4.75154	1.0 "	5.0000 U 95 70-130
Chromium	51.1117	2.0 "	50.000 0.688805 101 70-130
Cobalt	50.1582	1.0 "	50.000 0.074605 100 70-130
Copper	69.8670	2.0 "	50.000 20.4795 99 70-130
Lead	50.7791	1.0 "	50.000 0.558395 100 70-130
Manganese	50.2177	1.0 "	50.000 0.024240 100 70-130
Nickel	48.9506	1.0 "	50.000 1.01036 96 70-130
Selenium	48.1231	5.0 "	50.000 0.051035 96 70-130
Silver	5.43220	1.0 "	5.0000 U 109 70-130
Thallium	48.4561	1.0 "	50.000 U 97 70-130
Vanadium	50.7567	5.0 "	50.000 U 102 70-130
Zinc	64.3924	2.0 "	50.000 15.5133 98 70-130
Aluminum	217.519	30.0 "	200.00 9.82136 104 70-130
Uranium	52.1318	1.0 "	50.000 0.463778 103 70-130
Matrix Spike (BC21203-MS2)	Source: 1203001-09	Prepared: 03/12/12 10:38	Analyzed: 03/13/12 11:04
Calcium	43665.4	500 ug/L	10000 31895.0 118 70-130
Iron	5177.21	100 "	5000.0 9.56564 103 70-130
Magnesium	18156.8	500 "	10000 7035.23 111 70-130
Potassium	22771.8	2000 "	20000 1353.03 107 70-130
Sodium	27487.1	1000 "	10000 16089.3 114 70-130
Boron	545.988	50.0 "	500.00 11.4470 107 70-130
Lithium	567.166	25.0 "	500.00 1.94099 113 70-130
Strontium	576.180	200 "	500.00 65.9451 102 70-130
Tin	494.595	200 "	500.00 0.822522 99 70-130
Titanium	527.638	200 "	500.00 U 106 70-130



## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 3 Environmental Science Center

## Office of Analytical Services and Quality Assurance

701 Mapes Road

Fort Meade, Maryland 20755-5350

**DRAFT**

Site Name: Dimock Residential Groundwater

Project #: DAS R33937

**Notes and Definitions**

- UJ** The analyte was not detected at or above the quantitation limit. The quantitation limit is an estimate.
- D** Source sample result and/or duplicate sample result are below the quantitation limit and the RPD is artificially high. Precision data (RPD value) has no significance for this QC Sample.

**%REC** Percent Recovery**RPD** Relative Percent Difference**U** Analyte included in the analysis, but not detected at or above the quantitation limit.

**Quantitation Limit:** The lowest concentration of an analyte that can be reliably measured within specified limits of precision and accuracy for a specific laboratory analytical method and that takes into account analytical adjustments made during sample preparation and analysis.

**REPORTING PROTOCOL FOR SOLID SAMPLE RESULTS:** Percent Solids (percent dry wt at 105 degrees C) determinations are routinely performed for most organic and inorganic analyses. Consequently, these samples are analyzed wet and converted to a dry weight result for reporting purposes. If metals and mercury analyses are requested, they are routinely prepared for analyses by an initial drying at 60 degrees C, homogenized prior to digestion, and are analyzed and reported on a dry weight basis. Oil-type samples are analyzed and reported on a wet weight basis for all analyses because of the nature of the sample matrix. Any exceptions to this protocol will be noted in the narrative.



## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 3 Environmental Science Center

## Office of Analytical Services and Quality Assurance

701 Mapes Road

Fort Meade, Maryland 20755-5350



DRAFT

## Items for Project Manager Review

LabNumber	Analysis	Analyte	Exception
	Total Metals by 200.7	(Water)	Special Units: (ug/L)
I203001-08	Total Metals by 200.7	Tin	UJ: The analyte was not detected at or above the quantitation limit. The quantitation limit is an estimate.
I203001-09	Total Metals by 200.7	Tin	UJ: The analyte was not detected at or above the quantitation limit. The quantitation limit is an estimate.
I203001-11	Total Metals by 200.7	Tin	UJ: The analyte was not detected at or above the quantitation limit. The quantitation limit is an estimate.
I203001-12	Total Metals by 200.7	Tin	UJ: The analyte was not detected at or above the quantitation limit. The quantitation limit is an estimate.
I203001-12	Total Metals by 200.8	Uranium	UJ: The analyte was not detected at or above the quantitation limit. The quantitation limit is an estimate.
BC21203-DUP1	Total Metals by 200.8	Aluminum	Exceeds RPD control limit
BC21203-DUP1	Total Metals by 200.8	Nickel	Exceeds RPD control limit
BC21203-DUP1	Total Metals by 200.8	Uranium	Exceeds RPD control limit
BC21203-DUP1	Total Metals by 200.8	Vanadium	Exceeds RPD control limit
BC21203-DUP2	Total Metals by 200.7	Tin	Exceeds RPD control limit

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....

...

“C”

...

“D”

“B”

“E”

....

“G”

“W”

# ICP-MS ELAN 6100 RUN LOG

Computer Name: D0303SLABF103A

Dataset File Path: C:\Elandata\Dataset\EL120216\

Optimization File: C:\Elandata\Optimize\epa.dac

Tuning File: C:\Elandata\Tuning\epa.tun

Method File: C:\Elandata\Method\EPA\2008.MTH + B,Sr,Sn,U,Br - 1 CAL STD DIMOCK.mth

Report Date/Time: Wednesday, March 14, 2012 14:27:41

Batch ID: WO# 1203001

Analyst: R.COSTAS

Site: DIMOCK

Inst Run: EL120314

**Matrix HNO<sub>3</sub>/HCl. Samples diluted 2.5X unless otherwise noted below.**

**Matrix 1% nitric. No dilution unless indicated below.**

*Plots  
3/14/12  
Run report  
1203001-12  
PC 4/2/12*

## The Dataset

Batch ID	Description	Sample ID	Date and Time	Samp. File Name	Read Type
		Blank	08:24:28 Thu 16-Feb-12	C:\Elandata\Dataset\EL120216\Blank.001	Blank
		Blank	08:29:52 Thu 16-Feb-12	C:\Elandata\Dataset\EL120216\Blank.002	Blank
		Standard 1	08:35:04 Thu 16-Feb-12	C:\Elandata\Dataset\EL120216\Standard 1.003	Standard #1
		Standard 2	08:40:17 Thu 16-Feb-12	C:\Elandata\Dataset\EL120216\Standard 2.004	Standard #2
		Standard 3	08:45:31 Thu 16-Feb-12	C:\Elandata\Dataset\EL120216\Standard 3.005	Standard #3
		QC Std 2	08:50:55 Thu 16-Feb-12	C:\Elandata\Dataset\EL120216\QC Std 2.006	QC Std #2
		QC Std 4	08:56:07 Thu 16-Feb-12	C:\Elandata\Dataset\EL120216\QC Std 4.007	QC Std #4
		QC Std 5	09:01:22 Thu 16-Feb-12	C:\Elandata\Dataset\EL120216\QC Std 5.008	QC Std #5
		QC Std 6	09:06:35 Thu 16-Feb-12	C:\Elandata\Dataset\EL120216\QC Std 6.009	QC Std #6
		QC Std 7	09:11:31 Thu 16-Feb-12	C:\Elandata\Dataset\EL120216\QC Std 7.010	QC Std #7
		BB21502-BLK1	09:17:16 Thu 16-Feb-12	C:\Elandata\Dataset\EL120216\BB21502-BLK1.011	Sample
		BB21502-BS1	09:22:55 Thu 16-Feb-12	C:\Elandata\Dataset\EL120216\BB21502-BS1.012	Sample
		1202005-01	09:27:56 Thu 16-Feb-12	C:\Elandata\Dataset\EL120216\1202005-01.013	Sample
		1202005-02	09:33:17 Thu 16-Feb-12	C:\Elandata\Dataset\EL120216\1202005-02.014	Sample
		1202005-03	09:38:39 Thu 16-Feb-12	C:\Elandata\Dataset\EL120216\1202005-03.015	Sample
		1202005-04	09:44:01 Thu 16-Feb-12	C:\Elandata\Dataset\EL120216\1202005-04.016	Sample
		1202005-07	09:52:32 Thu 16-Feb-12	C:\Elandata\Dataset\EL120216\1202005-07.017	Sample
		1202005-08	09:57:51 Thu 16-Feb-12	C:\Elandata\Dataset\EL120216\1202005-08.018	Sample
		BB21502-DUP1	10:03:07 Thu 16-Feb-12	C:\Elandata\Dataset\EL120216\BB21502-DUP1.019	Sample
		1202005-09	10:08:23 Thu 16-Feb-12	C:\Elandata\Dataset\EL120216\1202005-09.020	Sample
		1202005-10	10:13:39 Thu 16-Feb-12	C:\Elandata\Dataset\EL120216\1202005-10.021	Sample
		BB21502-MS1	10:18:56 Thu 16-Feb-12	C:\Elandata\Dataset\EL120216\BB21502-MS1.022	Sample
		BB21505-BLK1	10:24:14 Thu 16-Feb-12	C:\Elandata\Dataset\EL120216\BB21505-BLK1.023	Sample
		BB21505-BS1	10:29:32 Thu 16-Feb-12	C:\Elandata\Dataset\EL120216\BB21505-BS1.024	Sample
		1202005-11	10:34:51 Thu 16-Feb-12	C:\Elandata\Dataset\EL120216\1202005-11.025	Sample
		1202005-12	10:40:10 Thu 16-Feb-12	C:\Elandata\Dataset\EL120216\1202005-12.026	Sample
		QC Std 2	10:45:23 Thu 16-Feb-12	C:\Elandata\Dataset\EL120216\QC Std 2.027	QC Std #2
		QC Std 4	10:50:36 Thu 16-Feb-12	C:\Elandata\Dataset\EL120216\QC Std 4.028	QC Std #4
		1202005-13	10:55:54 Thu 16-Feb-12	C:\Elandata\Dataset\EL120216\1202005-13.029	Sample
		BB21505-DUP1	11:02:44 Thu 16-Feb-12	C:\Elandata\Dataset\EL120216\BB21505-DUP1.030	Sample
		1202005-14	11:08:05 Thu 16-Feb-12	C:\Elandata\Dataset\EL120216\1202005-14.031	Sample
		BB21505-MS1	11:13:26 Thu 16-Feb-12	C:\Elandata\Dataset\EL120216\BB21505-MS1.032	Sample
		1202005-15	11:18:47 Thu 16-Feb-12	C:\Elandata\Dataset\EL120216\1202005-15.033	Sample
		1202005-16	11:24:09 Thu 16-Feb-12	C:\Elandata\Dataset\EL120216\1202005-16.034	Sample
		1202005-17	11:29:31 Thu 16-Feb-12	C:\Elandata\Dataset\EL120216\1202005-17.035	Sample
		1202005-18	11:34:50 Thu 16-Feb-12	C:\Elandata\Dataset\EL120216\1202005-18.036	Sample
		BB21505-MS3	11:40:05 Thu 16-Feb-12	C:\Elandata\Dataset\EL120216\BB21505-MS3.037	Sample

1202005-24	11:45:21 Thu 16-Feb-12	C:\Elandata\Dataset\EL120216\1202005-24.038	Sample
1202005-25	11:50:37 Thu 16-Feb-12	C:\Elandata\Dataset\EL120216\1202005-25.039	Sample
QC Std 2	11:55:50 Thu 16-Feb-12	C:\Elandata\Dataset\EL120216\QC Std 2.040	QC Std #2
QC Std 4	12:01:02 Thu 16-Feb-12	C:\Elandata\Dataset\EL120216\QC Std 4.041	QC Std #4
1202005-26	12:06:19 Thu 16-Feb-12	C:\Elandata\Dataset\EL120216\1202005-26.042	Sample
1202005-27	12:11:36 Thu 16-Feb-12	C:\Elandata\Dataset\EL120216\1202005-27.043	Sample
1202005-29	12:16:54 Thu 16-Feb-12	C:\Elandata\Dataset\EL120216\1202005-29.044	Sample
1202005-30	12:22:13 Thu 16-Feb-12	C:\Elandata\Dataset\EL120216\1202005-30.045	Sample
1202005-31	12:27:32 Thu 16-Feb-12	C:\Elandata\Dataset\EL120216\1202005-31.046	Sample
1202005-32	12:32:52 Thu 16-Feb-12	C:\Elandata\Dataset\EL120216\1202005-32.047	Sample
1202005-33	12:38:12 Thu 16-Feb-12	C:\Elandata\Dataset\EL120216\1202005-33.048	Sample
BB21505-DUP3	12:43:33 Thu 16-Feb-12	C:\Elandata\Dataset\EL120216\BB21505-DUP3.049	Sample
QC Std 2	12:48:47 Thu 16-Feb-12	C:\Elandata\Dataset\EL120216\QC Std 2.050	QC Std #2
QC Std 4	12:54:00 Thu 16-Feb-12	C:\Elandata\Dataset\EL120216\QC Std 4.051	QC Std #4
Blank	09:55:13 Wed 22-Feb-12	C:\Elandata\Dataset\EL120216\Blank.052	Blank
Blank	10:00:42 Wed 22-Feb-12	C:\Elandata\Dataset\EL120216\Blank.053	Blank
Standard 1	10:05:54 Wed 22-Feb-12	C:\Elandata\Dataset\EL120216\Standard 1.054	Standard #1
Standard 2	10:11:07 Wed 22-Feb-12	C:\Elandata\Dataset\EL120216\Standard 2.055	Standard #2
Standard 3	10:16:20 Wed 22-Feb-12	C:\Elandata\Dataset\EL120216\Standard 3.056	Standard #3
QC Std 2	10:21:44 Wed 22-Feb-12	C:\Elandata\Dataset\EL120216\QC Std 2.057	QC Std #2
QC Std 4	10:26:57 Wed 22-Feb-12	C:\Elandata\Dataset\EL120216\QC Std 4.058	QC Std #4
QC Std 5	10:32:10 Wed 22-Feb-12	C:\Elandata\Dataset\EL120216\QC Std 5.059	QC Std #5
QC Std 6	10:37:23 Wed 22-Feb-12	C:\Elandata\Dataset\EL120216\QC Std 6.060	QC Std #6
QC Std 7	10:42:20 Wed 22-Feb-12	C:\Elandata\Dataset\EL120216\QC Std 7.061	QC Std #7
BB22103-BLK1	10:47:57 Wed 22-Feb-12	C:\Elandata\Dataset\EL120216\BB22103-BLK1.062	Sample
BB22103-BS1	10:53:17 Wed 22-Feb-12	C:\Elandata\Dataset\EL120216\BB22103-BS1.063	Sample
1202005-28	10:58:38 Wed 22-Feb-12	C:\Elandata\Dataset\EL120216\1202005-28.064	Sample
1202005-34	11:03:59 Wed 22-Feb-12	C:\Elandata\Dataset\EL120216\1202005-34.065	Sample
BB22103-DUP1	11:09:20 Wed 22-Feb-12	C:\Elandata\Dataset\EL120216\BB22103-DUP1.066	Sample
1202005-35	11:14:42 Wed 22-Feb-12	C:\Elandata\Dataset\EL120216\1202005-35.067	Sample
1202005-36	11:20:05 Wed 22-Feb-12	C:\Elandata\Dataset\EL120216\1202005-36.068	Sample
1202005-38	11:25:24 Wed 22-Feb-12	C:\Elandata\Dataset\EL120216\1202005-38.069	Sample
1202005-39	11:30:39 Wed 22-Feb-12	C:\Elandata\Dataset\EL120216\1202005-39.070	Sample
1202005-40	11:35:55 Wed 22-Feb-12	C:\Elandata\Dataset\EL120216\1202005-40.071	Sample
QC Std 2	11:41:08 Wed 22-Feb-12	C:\Elandata\Dataset\EL120216\QC Std 2.072	QC Std #2
QC Std 4	11:46:20 Wed 22-Feb-12	C:\Elandata\Dataset\EL120216\QC Std 4.073	QC Std #4
BB22103-MS1	11:51:37 Wed 22-Feb-12	C:\Elandata\Dataset\EL120216\BB22103-MS1.074	Sample
1202005-41	11:56:54 Wed 22-Feb-12	C:\Elandata\Dataset\EL120216\1202005-41.075	Sample
1202005-43	12:02:12 Wed 22-Feb-12	C:\Elandata\Dataset\EL120216\1202005-43.076	Sample
QC Std 2	12:07:25 Wed 22-Feb-12	C:\Elandata\Dataset\EL120216\QC Std 2.077	QC Std #2
QC Std 4	12:12:38 Wed 22-Feb-12	C:\Elandata\Dataset\EL120216\QC Std 4.078	QC Std #4
QC Std 2	12:23:02 Wed 22-Feb-12	C:\Elandata\Dataset\EL120216\QC Std 2.079	QC Std #2
QC Std 6	12:29:02 Wed 22-Feb-12	C:\Elandata\Dataset\EL120216\QC Std 6.080	QC Std #6
-43	14:56:04 Wed 22-Feb-12	C:\Elandata\Dataset\EL120216\43.081	Sample
-41	15:02:04 Wed 22-Feb-12	C:\Elandata\Dataset\EL120216\41.082	Sample
Blank	12:03:31 Wed 14-Mar-12	C:\Elandata\Dataset\EL120216\Blank.083	Blank
Standard 1	12:08:27 Wed 14-Mar-12	C:\Elandata\Dataset\EL120216\Standard 1.084	Standard #1
Standard 2	12:13:25 Wed 14-Mar-12	C:\Elandata\Dataset\EL120216\Standard 2.085	Standard #2
Standard 3	12:18:23 Wed 14-Mar-12	C:\Elandata\Dataset\EL120216\Standard 3.086	Standard #3
QC Std 2	12:23:32 Wed 14-Mar-12	C:\Elandata\Dataset\EL120216\QC Std 2.087	QC Std #2
QC Std 4	12:28:29 Wed 14-Mar-12	C:\Elandata\Dataset\EL120216\QC Std 4.088	QC Std #4
QC Std 5	12:33:27 Wed 14-Mar-12	C:\Elandata\Dataset\EL120216\QC Std 5.089	QC Std #5
QC Std 6	12:38:25 Wed 14-Mar-12	C:\Elandata\Dataset\EL120216\QC Std 6.090	QC Std #6
QC Std 7	12:43:05 Wed 14-Mar-12	C:\Elandata\Dataset\EL120216\QC Std 7.091	QC Std #7
BC21203-BLK1	12:50:37 Wed 14-Mar-12	C:\Elandata\Dataset\EL120216\BC21203-BLK1.092	Sample
BC21203-BS1	12:55:41 Wed 14-Mar-12	C:\Elandata\Dataset\EL120216\BC21203-BS1.093	Sample

BC21203	1203001-01	13:00:46 Wed 14-Mar-12	C:\Elandata\Dataset\EL120216\1203001-01.094	Sample
	BC21301-DUP1	13:05:52 Wed 14-Mar-12	C:\Elandata\Dataset\EL120216\BC21301-DUP1.095	Sample
	1203001-02	13:10:58 Wed 14-Mar-12	C:\Elandata\Dataset\EL120216\1203001-02.096	Sample
	1203001-03	13:16:05 Wed 14-Mar-12	C:\Elandata\Dataset\EL120216\1203001-03.097	Sample
	1203001-04	13:21:12 Wed 14-Mar-12	C:\Elandata\Dataset\EL120216\1203001-04.098	Sample
	1203001-06	13:26:15 Wed 14-Mar-12	C:\Elandata\Dataset\EL120216\1203001-06.099	Sample
	1203001-07	13:31:16 Wed 14-Mar-12	C:\Elandata\Dataset\EL120216\1203001-07.100	Sample
	1203001-08	13:36:16 Wed 14-Mar-12	C:\Elandata\Dataset\EL120216\1203001-08.101	Sample
	1203001-09	13:41:27 Wed 14-Mar-12	C:\Elandata\Dataset\EL120216\1203001-09.102	Sample
BC21203	BC21301-MS1	13:46:29 Wed 14-Mar-12	C:\Elandata\Dataset\EL120216\BC21301-MS1.103	Sample
	1203001-11	13:51:31 Wed 14-Mar-12	C:\Elandata\Dataset\EL120216\1203001-11.104	Sample
	1203001-12	13:56:34 Wed 14-Mar-12	C:\Elandata\Dataset\EL120216\1203001-12.105	Sample
	QC Std 2	14:01:32 Wed 14-Mar-12	C:\Elandata\Dataset\EL120216\QC Std 2.106	QC Std #2
	QC Std 4	14:06:29 Wed 14-Mar-12	C:\Elandata\Dataset\EL120216\QC Std 4.107	QC Std #4

don't use - no sample



## EPA - OASQA - ICP-MS Standard/Reagent Preparation

Perkin Elmer ELAN 6100

Analyst:

*Chrysler*Date: 3/14/12 Pipets Logbook # 11Run Filename EL120314 (all electronic files saved using Run Filename) SOP #: R3-QA116SITE/WO#: D1 mock 1203001 Reagent purity checked ✓

\* See Certificates of Analysis for analytes and concentrations.

\*\* Matrix of IBL and calibration standards: 0.8% nitric/0.4% HCl (0.8 mL/0.4mL to 100 mL final vol) ✓  
IBL made daily. OR 1% nitric (1mL to 100mL final vol)

\*\*SCV (made daily): Single solution made with both stocks and diluted to volume with IBL.

*Stock Solution	Expiration Date	Stock Conc	Vendor	Bar Code	Stock Volume	Final Volume	Final Conc
QC-7A	1-2013	100 mg/L 50 mg/L Ag 1000 mg/L K	Spex	13853	50 $\mu$ L	50 ml	see TV sheet
QC-21	1-2013	100 mg/L	Spex	13852	50 $\mu$ L	50 ml	see TV sheet

## Internal Standards Mixed Solution (made daily).

Matrix = 1% nitric (2 mL conc. nitric to 200 mL final volume)

Stock Solution	Stock Conc	Vendor	Bar Code	Stock Volume	Final Conc
Germanium	10 mg/L	Claritas	12704	4 mL	0.200 mg/L
* IS Multi-Mix	10 mg/L	Claritas	6403	0.8 mL	0.04 mg/L
Scandium	10 mg/L	Claritas	12703	2.0 mL	0.08 mg/L
Lithium 6	100 mg/L	Claritas	11126	2 mL	1.0 mg/L

## MIN Mixed Stock Solution

Matrix = 1% nitric (1 mL conc. nitric to 100 mL final volume)

Date made: 2-2011Prepared by: RC

Stock Solution	Stock Conc	Vendor	Bar Code	Stock Volume	Final Conc
Iron	10000 mg/L	High Purity	11886	10 mL	1000 mg/L
Calcium	10000 mg/L	High Purity	10171	10 mL	1000 mg/L
Magnesium	10000 mg/L	High Purity	10172	10 mL	1000 mg/L
Potassium	10000 mg/L	High Purity	11885	10 mL	1000 mg/L
Sodium	10000 mg/L	High Purity	11808	10 mL	1000 mg/L

## CAL4 Mixed Stock Solution

Matrix = 2% nitric 2%HCl (2 mL conc. to 100 mL final volume)

Date made: 5-2011Prepared by: RC1ml of 10mg/L stock to 100mL for 100  $\mu$ g/L

Stock Solution	Stock Conc	Vendor	Bar Code	Stock Volume	Final Conc
Bromide	1000 ppm	High Purity	10048	1 mL	10 mg/L
Boron	5000 ppm	High Purity	5508	0.2 mL	10 mg/L
Strontium	1000 ppm	High Purity	11882	1.0 mL	10 mg/L
Tin	10,000 ppm	High Purity	5616	0.1 mL	10 mg/L

## \*\* CAL3 Mixed Stock Solution of 500 mL final volume

Date made:

Prepared by:

*1-12 RC*

*Stock Solution	Stock Conc	Vendor	Bar Code	Stock Volume	Final Conc
2008 CAL-1	20 mg/L	Spex	13851	2.5 mL	100 $\mu$ g/L
MIN	1000 mg/L	see above	see above	5 mL	10 mg/L
CAL-4	10 mg/L	see above	see above	5 mL (1ml of 10mg/L stock to 100mL to run as separate CAL-4 standard)	100 $\mu$ g/L run as separate standard: <input type="checkbox"/>

**EPA - OASQA - ICP-MS Standard/Reagent Preparation**  
 Perkin Elmer ELAN 6100

<b>** Calibration Standards (made daily)</b>			
Solution ID	Prepared by diluting:	with IBL	CAL Final Conc. (CAL / MIN) (see true value sheet)
CAL 1	CAL 2	5X	10 µg/L / 1 mg/L
CAL 2 / CCV	CAL 3	2X	50 µg/L / 5 mg/L
CAL 3	-	na	100 µg/L / 10 mg/L

LCV Standard Preparation (made daily) Matrix will be same as IBL.			
LCV Standard Preparation (made daily) Matrix will be same as IBL.	Prepared by diluting:	to Final volume with IBL	Used? ✓
LCV (0.4 µg/L / 0.04 mg/L)	0.4 mL of CAL 1	10 mL	✓
LCV (0.8 µg/L / 0.08 mg/L)	0.8 mL of CAL 1	10 mL	✓
LCV (1.0 µg/L)	2x of LCV (2.0 µg/L)		
LCV (2.0 µg/L / 0.2 mg/L)	0.4 mL of CAL 2	10 mL	
LCV (4.0 µg/L / 0.4 mg/L)	0.4 mL of CAL 3	10 mL	

Reagent Acid Stocks					
	Vendor	Bar Code		Vendor	Bar Code
Nitric Acid	Fisher	11152	HCl Acid	Fisher	11148

Other solutions									
Solution	Stock Solution	Stock Conc	Vendor	Bar Code	Stock Volume	Final Volume	Final Conc	Date/ Initials	Acid Conc

\* See Certificate of Analysis for analytes.

Certificates of Analysis Logbook # 2

Comments: \_\_\_\_\_

# OASQA TRUE VALUES for ICP-MS Standards and QC

ICP-MS OASQA QL (ppb)	ICPMS OASQA QL(ppb)		QCStd 2 CCV +10% ppb	QCStd 5 SCV +10% ppb	SDWA Primary MCL ppb	LCV +50% ppb (2.5x diluted value)	BS = MS +15% / +30% ppb (2.5x diluted value)
ILM5.4/ISM1.2	SDWA					Lowest possible values are listed	
1.0		Ag	50	50		0.4	2/5
20		Al	50	100		0.4	80/200
1.0	2.0	As	50	100	10	0.4	20/50
		B	50 CAL4	100		0.4	20/50
10	100	Ba	50	100	2000	0.4	80/200
1.0	1.0	Be	50	100	4	0.4	2/5
		Br	50 CAL4	*		10	*
1.0	1.0	Cd	50	100	5	0.4	2/5
1.0		Co	50	100		0.4	20/50
2.0	5.0	Cr	50	100	100	0.4	20/50
2.0	5.0	Cu	50	100	50 = POL	0.4	20/50
1.0		Mn	50	100		0.4	20/50
		Mo	50	100		0.4	20/50
1.0		Ni	50	100		0.4	20/50
		Li	*	100		*	*
1.0	2.0	Pb	50	100	5 = POL	0.4	20/50
2.0	5.0	Sb	50	100	6	0.4	20/50
5.0	5.0	Se	50	100	50	0.4	20/50
		Sn	50 CAL4	*		10	20/50
		Sr	50 CAL4	100		0.4	20/50
1.0	2.0	Tl	50	100	2	0.4	20/50
		Tl	*	100		*	*
		U	50	*		0.4	20/50
5.0		V	50	100		0.4	20/50
2.0		Zn	50	100		0.4	20/50
if requested		nm	nm	nm	nm	nm	nm
2000	1000	Na	5.00	MIN	0.1	no MCL	0.4/1.0
2000		Mg	5.00	MIN	0.1		0.4/1.0
2000		K	5.00	MIN	1.0		0.8/2.0
2000		Ca	5.00	MIN	0.1		0.4/1.0
100		Fe	5.00	MIN	0.1		0.2/0.5

\*added separately to solution

## Making CAL Standards

QC Std 1 (CAL1) = 10ppb/1ppm (5x of 50ppb)

QC Std 2 (CAL2/CCV) = 50ppb/5ppm (2x of 100ppb)

QC Std 3 (CAL3) = 100ppb/10ppm

QC Std 4 = Blank = ± LCV

## LCV (diluted value)

0.4 ppb (0.4 ppm)= 0.4ml of 10 ppb (CAL1) to 10ml

x 2.5

1.0 (0.10)

0.8 ppb (0.8 ppm) = 0.8ml of 10 ppb (CAL1) to 10ml

2.0 (0.20)

1.0 ppb (0.1 ppm) = 2x dilution of 2.0 ppb

2.5 (0.25)

2.0 ppb (0.2 ppm) = 0.4ml of 50 ppb (CAL2) to 10ml

5.0 (0.50)

QC Std 1 CAL  
QC Std 2 CAL/CCV  
QC Std 3 CAL  
QC Std 4 IBL  
QC Std 5 SCV  
QC Std 6 LCV (tv=0.4ppb)  
QC Std 7 LCV (tv=0.8ppb)  
QC Std 8 LCV (tv=1.0ppb)  
QC Std 9 LCV (tv=2.0ppb)  
QC Std 10 BLK  
QC Std 11 BS (digested)  
QC Std 12 BS (undigested)

# ELAN 6100 Quantitative Analysis Calibration Report

File Name: EL120314.cal  
File Path: C:\Elandata\System\EL120314.cal  
Calibration Type: External Calibration  
WO#: 1203001  
SITE: DIMOCK

## Calibration File Name

File Name EL120314.cal

## Method File Name

File Name 2008.MTH + B,Sr,Sn,U,Br - 1 CAL STD DIMOCK.mth

Path C:\Elandata\Method\EPA\2008.MTH + B,Sr,Sn,U,Br - 1 CAL STD DIMOCK.mth

Analyte	Mass	Curve Type	Slope	Intercept	Corr. Coeff.
Be r	9.012	Linear Thru Zero	0.00	0.00	0.999754
Li u	6.015	Linear Thru Zero	0.00	0.00	0.000000
Li	6.015	Linear Thru Zero	0.00	0.00	0.000000
Be	9.012	Linear Thru Zero	0.00	0.00	0.998762
B	11.009	Linear Thru Zero	0.00	0.00	0.999104
Al	26.982	Linear Thru Zero	0.01	0.00	0.999791
Sc	44.956	Linear Thru Zero	0.00	0.00	0.000000
V r	50.944	Linear Thru Zero	0.02	0.00	0.999537
V u	50.944	Linear Thru Zero	0.02	0.00	0.999141
Cr r	51.941	Linear Thru Zero	0.01	0.00	0.999347
Cr	52.941	Linear Thru Zero	0.00	0.00	0.996003
Mn	54.938	Linear Thru Zero	0.02	0.00	0.999403
Co	58.933	Linear Thru Zero	0.01	0.00	0.998584
Ni r	59.933	Linear Thru Zero	0.00	0.00	0.999181
Ni	61.928	Linear Thru Zero	0.00	0.00	0.998119
Cu r	62.930	Linear Thru Zero	0.01	0.00	0.998487
Cu	64.928	Linear Thru Zero	0.00	0.00	0.998842
Zn r	65.926	Linear Thru Zero	0.01	0.00	0.999905
Zn	66.927	Linear Thru Zero	0.00	0.00	0.999081
Zn	67.925	Linear Thru Zero	0.01	0.00	0.999942
Ge	71.922	Linear Thru Zero	0.00	0.00	0.000000
As r	74.922	Linear Thru Zero	0.01	0.00	0.999958
As u	74.922	Linear Thru Zero	0.01	0.00	0.999991
Se r	81.917	Linear Thru Zero	0.00	0.00	0.999912
Se	76.920	Linear Thru Zero	0.00	0.00	0.999937
Sr	87.906	Linear Thru Zero	0.12	0.00	0.999885
Ag r	106.905	Linear Thru Zero	0.03	0.00	0.999963
Ag	108.905	Linear Thru Zero	0.03	0.00	0.999989
Cd r	110.904	Linear Thru Zero	0.01	0.00	0.999997
Cd	105.907	Linear Thru Zero	0.00	0.00	0.999851
Cd	107.904	Linear Thru Zero	0.00	0.00	0.999683
Cd	113.904	Linear Thru Zero	0.01	0.00	0.999963
Cd u	110.904	Linear Thru Zero	0.01	0.00	0.999996
In	114.904	Linear Thru Zero	0.00	0.00	0.000000
Sb r	122.904	Linear Thru Zero	0.02	0.00	0.999998
Sb	120.904	Linear Thru Zero	0.02	0.00	0.999966
Sn	117.902	Linear Thru Zero	0.02	0.00	0.999581
Sn r	119.902	Linear Thru Zero	0.02	0.00	0.999864
Ba r	136.905	Linear Thru Zero	0.01	0.00	0.999742

Ba	134.906	Linear Thru Zero	0.01	0.00	0.999963
Tb	158.925	Linear Thru Zero	0.00	0.00	0.000000
Tl r	204.975	Linear Thru Zero	0.04	0.00	0.999994
Tl	202.972	Linear Thru Zero	0.02	0.00	1.000000
U	238.050	Linear Thru Zero	0.06	0.00	0.999943
Pb	207.977	Linear Thru Zero	0.05	0.00	0.999842
Kr	82.914	Linear Thru Zero	0.00	0.00	0.000000
Cl	34.969	Linear Thru Zero	0.00	0.00	0.000000
C	12.000	Linear Thru Zero	0.00	0.00	0.000000
Y	88.905	Linear Thru Zero	0.00	0.00	0.000000
Br	78.918	Linear Thru Zero	0.00	0.00	0.999979
Br	80.916	Linear Thru Zero	0.00	0.00	1.000000
Ge-1	71.922	Linear Thru Zero	0.00	0.00	0.000000
Ru	98.906	Linear Thru Zero	0.00	0.00	0.000000
Pd	104.905	Linear Thru Zero	0.00	0.00	0.000000
Ho	164.930	Linear Thru Zero	0.00	0.00	0.000000
Th	232.038	Linear Thru Zero	13318.30	0.00	0.999837
Mo	94.906	Linear Thru Zero	0.01	0.00	0.999994
Mo	96.906	Linear Thru Zero	0.01	0.00	0.999987
Mo r	97.906	Linear Thru Zero	0.02	0.00	0.999992
Rh	102.905	Linear Thru Zero	0.00	0.00	0.000000
In-1	114.904	Linear Thru Zero	0.00	0.00	0.000000
Ti	46.952	Linear Thru Zero	0.00	0.00	0.000000
Li	7.016	Linear Thru Zero	0.00	0.00	0.000000

## Method Equation

Analyte Mass Corrections  
Li 6.015-0.0811\*Li 7  
V r 50.944-2.95\*(ClO53 -(0.113\*Cr52))  
As r 74.922-3.127\*(ArCl 77-(0.873\*Se 82))  
Se r 81.917-1.008696\*kr83  
Se 76.920 - 1.007833 \* Kr 83  
Cd r 110.904-1.073\*(MoO 108 - (0.712\*Pd 106))  
Cd 105.907 - 1.223914 \* Pd 105  
Cd 107.904 - 1.184953 \* Pd 105  
Cd 113.904 - 0.026826 \* Sn 118  
In 114.904 - 0.014032 \* Sn 118  
Sb r 122.904 - 0.127189 \* Te 125  
Pb 207.977+1\*Pb 206 + 1\*Pb 207  
Mo r 97.906 - 0.110588 \* Ru 101  
In-1 114.904 - 0.014032 \* Sn 118

## Tuning File Name

Tuning File Name epa.tun

Tuning File Path C:\Elandata\Tuning\epa.tun

## Tuning File

Analyte	E Mass	Meas Mass	Mass C	DAC Val	Res DAC Value	Meas Peak W	Custom Res
He	3.016	2.977		599	2070	0.699	
Mg	23.985	23.979		5705	2037	0.689	
Rh	102.905	102.879		24966	1975	0.694	
Ce	139.905	139.879		33962	2015	0.695	
Pb	207.977	207.979		50424	2215	0.679	
U	238.050	237.974		57647	2348	0.697	

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# ELAN 6100 Daily Performance Report

Sample ID: Sample

Sample Date/Time: Wednesday, March 14, 2012 11:51:57

Sample Description:

Method File: C:\Elandata\Method\EPA\epa.Daily.mth

Dataset File: C:\Elandata\Dataset\Default\Sample.037

Tuning File: C:\Elandata\Tuning\epa.tun

Optimization File: c:\elandata\optimize\epa.dac

Dual Detector Mode: Dual

Acq. Dead Time(ns): 65

Current Dead Time (ns): 65

1203001

## Summary

Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
Be	9.0	3511.1	3511.068	35.370	1.0
Co	58.9	99779.6	99779.585	1281.972	1.3
Mg	24.0	48921.9	48921.901	713.935	1.5
Rh	102.9	191646.0	191645.953	2286.278	1.2
In	114.9	214599.7	214599.663	2576.126	1.2
Pb	208.0	86440.2	86440.172	477.005	0.6
Ba	137.9	179447.3	179447.268	1623.412	0.9
Ba++	69.0	4749.4	0.026	0.000	0.6
Ce	139.9	229041.6	229041.564	1287.443	0.6
CeO	155.9	6762.2	0.030	0.001	1.9
Bkgd	220.0	1.0	1.000	0.667	66.7
C	12.0	540846.0	540846.002	594.624	0.1
C	13.0	8195.6	8195.564	93.487	1.1
U	238.1	197460.8	197460.794	2210.195	1.1
Kr	83.9	1211.8	1211.846	36.687	3.0
Kr	82.9	242.6	242.554	16.877	7.0

## Current Optimization File Data

Current Value	Description
0.88	Nebulizer Gas Flow
7.25	Lens Voltage
1100.00	ICP RF Power
-2250.00	Analog Stage Voltage
1900.00	Pulse Stage Voltage
70.00	Discriminator Threshold
-6.00	AC Rod Offset
60.00	Service DAC 1
0.00	Quadrupole Rod Offset
-15.00	Differential Aperture

## Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	25	5.0	2633.5
Co	59	25	5.8	77996.4
In	115	25	7.3	162111.4

---

Sample ID: Sample

Report Date/Time: Wednesday, March 14, 2012 11:54:43

Page 1

DIM0205579

DIM0205616

# Instrument Tuning Report

1203001

File Name: epa.tun  
File Path: C:\Elandata\Tuning\epa.tun

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width	Custom Res.
He	3.016	2.977	599	2070	0.699	
Mg	23.985	23.979	5705	2037	0.689	
Rh	102.905	102.879	24966	1975	0.694	
Ce	139.905	139.879	33962	2015	0.695	
Pb	207.977	207.979	50424	2215	0.679	
U	238.050	237.974	57647	2348	0.697	

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**ELAN 6100 Quantitative Analysis - Summary Report**

User Name: R.COSTAS User

**Sample ID:** Blank

Sample Description:

Autosampler Position: 1

Sample Date/Time: Wednesday, March 14, 2012 12:03:31

Dataset File: C:\Elandata\Dataset\EL120216\Blank.083

Optimization File: C:\Elandata\Optimize\epa.dac

Method File: C:\Elandata\Method\EPA2008.MTH + B,Sr,Sn,U,Br - 1 CAL STD DIMOCK.mth

Calibration File:

Report Title: QUANTITATIVE ANALYSIS REPORT

analysis 200.8 or equivalent

SITE: DIMOCK WO1202004 3001 cc 3/14/12

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Sample Unit	Conc. RSD
Be r	9	1.333			ug/L	
> Li u	6	334987.888			ug/L	
L Li	6	333029.370			ug/L	
> Be	9	1.333			ug/L	
B	11	157.337			ug/L	
Al	27	1977.608			ug/L	
> Sc	45	443380.651			ug/L	
V r	51	2664.161			ug/L	
Vu	51	86078.430			ug/L	
Cr r	52	9512.307			ug/L	
Cr	53	28695.823			ug/L	
Mn	55	2161.992			ug/L	
Co	59	47.001			ug/L	
Ni r	60	461.019			ug/L	
Ni	62	171.004			ug/L	
Cu r	63	603.697			ug/L	
Cu	65	289.675			ug/L	
Zn r	66	537.024			ug/L	
Zn	67	1621.192			ug/L	
Zn	68	547.025			ug/L	
> Ge	72	122013.611			ug/L	
As r	75	223.994			ug/L	
As u	75	4344.270			ug/L	
Se r	82	7.818			ug/L	
Se	77	1256.524			ug/L	
Sr	88	250.673			ug/L	
Ag r	107	70.668			ug/L	
Ag	109	62.668			ug/L	
Cd r	111	294.635			ug/L	
Cd	106	-2719.513			ug/L	
Cd	108	-2883.440			ug/L	
Cd	114	236.018			ug/L	
Cd u	111	99.335			ug/L	
> In	115	216166.642			ug/L	
Sb r	123	58.080			ug/L	
Sb	121	76.668			ug/L	

Report Date/Time: Wednesday, March 14, 2012 12:06:51

Page 1

Sample ID: Blank

	Sn	118	148.670	ug/L
	Sn r	120	219.339	ug/L
	Ba r	137	50.001	ug/L
	Ba	135	25.000	ug/L
>	Tb	159	244819.515	ug/L
	Tl r	205	839.721	ug/L
	Tl	203	360.345	ug/L
	U	238	24.334	ug/L
	Pb	208	6009.054	ug/L
	Kr	83	251.007	ug/L
	Cl	35	28732582.996	mg/L
	C	12	386459.208	mg/L
	Y	89	239993.678	ug/L
>	Br	79	1790.227	ug/L
	Br	81	12370.400	ug/L
>	Ge-1	72	122013.611	ug/L
	Ru	99	2.333	ug/L
	Pd	105	2440.412	ug/L
	Ho	165	225360.332	ug/L
	Th	232	49.667	ug/L
>	Mo	95	128.336	ug/L
	Mo	97	76.334	ug/L
	Mo r	98	184.560	ug/L
	Rh	103	13.333	ug/L
>	In-1	115	216166.642	ug/L
	Tl	47	308.676	ug/L
	Li	7	24149.430	mg/L

**QC Out Of Limits (only failed QC will appear below)**

Measurement Type	Mass	Out of Limits Message
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**ELAN 6100 Quantitative Analysis - Summary Report**

User Name: R.COSTAS User

**Sample ID: Standard 1**

Sample Description:

Autosampler Position: 2

Sample Date/Time: Wednesday, March 14, 2012 12:08:27

Dataset File: C:\Elandata\Dataset\EL120216\Standard 1.084

Optimization File: C:\Elandata\Optimize\epa.dac

Method File: C:\Elandata\Method\EPA\2008.MTH + B,Sr,Sn,U,Br - 1 CAL STD DIMOCK.mth

Calibration File:

Report Title: QUANTITATIVE ANALYSIS REPORT

analysis 200.8 or equivalent

SITE: DIMOCK WO1202004 3001 LC 3/14/12

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Sample Unit	Conc. RSD
Be r	9	3017.956	1.333	10.000	ug/L	5.593
> Li u	6	310864.369	334987.888		ug/L	
L Li	6	308991.457	333029.370		ug/L	
> Be	9	3017.956	1.333	10.000	ug/L	3.115
B	11	4311.585	157.337	10.000	ug/L	2.271
Al	27	49640.831	1977.608	10.000	ug/L	0.418
> Sc	45	447491.995	443380.651		ug/L	
V r	51	87338.752	2664.161	10.000	ug/L	4.099
Vu	51	188383.878	86078.430	10.000	ug/L	3.397
Cr r	52	79098.435	9512.307	10.000	ug/L	0.533
Cr	53	43125.983	28695.823	10.000	ug/L	2.427
Mn	55	104522.871	2161.992	10.000	ug/L	3.028
Co	59	77477.387	47.001	10.000	ug/L	2.297
Ni r	60	16728.008	461.019	10.000	ug/L	2.506
Ni	62	2661.820	171.004	10.000	ug/L	1.739
Cu r	63	35485.687	603.697	10.000	ug/L	1.317
Cu	65	17103.164	289.675	10.000	ug/L	0.844
Zn r	66	10364.083	537.024	10.000	ug/L	2.312
Zn	67	4232.542	1621.192	10.000	ug/L	9.342
Zn	68	7618.514	547.025	10.000	ug/L	1.328
> Ge	72	123931.625	122013.611		ug/L	
As r	75	12541.695	223.994	10.000	ug/L	2.230
As u	75	15964.410	4344.270	10.000	ug/L	6.777
Se r	82	1299.866	7.818	10.000	ug/L	2.082
Se	77	2200.009	1256.524	10.000	ug/L	25.671
Sr	88	157935.633	250.673	10.000	ug/L	2.502
Ag r	107	60476.759	70.668	10.000	ug/L	0.592
Ag	109	56288.126	62.668	10.000	ug/L	1.416
Cd r	111	14036.698	294.635	10.000	ug/L	0.254
Cd	106	-1628.582	-2719.513	10.000	ug/L	22.323
Cd	108	-2056.661	-2883.440	10.000	ug/L	19.617
Cd	114	31560.691	236.018	10.000	ug/L	1.001
Cd u	111	13943.434	99.335	10.000	ug/L	0.386
> In	115	214806.790	216166.642		ug/L	
Sb r	123	33235.724	58.080	10.000	ug/L	0.992
Sb	121	43540.665	76.668	10.000	ug/L	1.529

Report Date/Time: Wednesday, March 14, 2012 12:11:48

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Sample ID: Standard 1

	Sn	118	41024.210	148.670	<b>10.000</b>	ug/L	2.203
	Sn r	120	56063.711	219.339	<b>10.000</b>	ug/L	4.858
	Ba r	137	21546.683	50.001	<b>10.000</b>	ug/L	0.714
	Ba	135	12508.622	25.000	<b>10.000</b>	ug/L	0.813
>	Tb	159	236433.976	244819.515		ug/L	
	Tl r	205	97663.168	839.721	<b>10.000</b>	ug/L	1.590
	Tl	203	40852.272	360.345	<b>10.000</b>	ug/L	1.028
	U	238	153031.111	24.334	<b>10.000</b>	ug/L	1.403
L	Pb	208	138116.251	6009.054	<b>10.000</b>	ug/L	0.820
	Kr	83	264.674	251.007		ug/L	
	Cl	35	28818989.655	28732582.996		mg/L	
	C	12	398081.761	386459.208		mg/L	
	Y	89	237033.567	239993.678		ug/L	
>	Br	79	4118.143	1790.227	<b>10.000</b>	ug/L	2.273
	Br	81	14877.868	12370.400	<b>10.000</b>	ug/L	25.613
>	Ge-1	72	123931.625	122013.611		ug/L	
	Ru	99	6.333	2.333		ug/L	
	Pd	105	2584.128	2440.412		ug/L	
	Ho	165	226959.095	225360.332		ug/L	
	Th	232	141264.459	49.667	<b>10.000</b>	ug/L	0.960
>	Mo	95	25248.622	128.336	<b>10.000</b>	ug/L	1.699
	Mo	97	15574.240	76.334	<b>10.000</b>	ug/L	1.652
	Mo r	98	40395.315	184.560	<b>10.000</b>	ug/L	0.529
	Rh	103	21.334	13.333		ug/L	
>	In-1	115	214806.790	216166.642		ug/L	
	Ti	47	377.013	308.676		ug/L	
	Li	7	23093.862	24149.430		mg/L	

**QC Out Of Limits (only failed QC will appear below)**

Measurement Type	Mass	Out of Limits Message
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**ELAN 6100 Quantitative Analysis - Summary Report**

User Name: R.COSTAS User

**Sample ID: Standard 2**

Sample Description:

Autosampler Position: 3

Sample Date/Time: Wednesday, March 14, 2012 12:13:25

Dataset File: C:\Elandata\Dataset\EL120216\Standard 2.085

Optimization File: C:\Elandata\Optimize\epa.dac

Method File: C:\Elandata\Method\EPA\2008 MTH + B,Sr,Sn,U,Br - 1 CAL STD DIMOCK.mth

Calibration File:

Report Title: QUANTITATIVE ANALYSIS REPORT

analysis 200.8 or equivalent

SITE: DIMOCK WO1202004

20 3.14

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Sample Unit	Conc. RSD
Be r	9	14270.034	1.333	50.136	ug/L	4.754
> Li u	6	273308.925	334987.888		ug/L	
L Li	6	271548.936	333029.370		ug/L	
> Be	9	14270.034	1.333	49.767	ug/L	0.660
> B	11	20106.785	157.337	49.798	ug/L	1.394
> Al	27	240515.377	1977.608	49.884	ug/L	1.791
> Sc	45	474896.260	443380.651		ug/L	
V r	51	450240.024	2664.161	49.992	ug/L	1.672
Vu	51	564085.616	86078.430	49.729	ug/L	2.168
Cr r	52	365823.794	9512.307	49.929	ug/L	0.614
Cr	53	80262.505	28695.823	49.023	ug/L	9.414
Mn	55	527846.690	2161.992	49.936	ug/L	0.318
Co	59	383710.563	47.001	49.864	ug/L	1.246
Ni r	60	80566.593	461.019	49.851	ug/L	2.148
Ni	62	12332.008	171.004	49.833	ug/L	4.070
Cu r	63	171940.113	603.697	49.846	ug/L	0.820
Cu	65	82285.284	289.675	49.831	ug/L	1.367
Zn r	66	47916.978	537.024	49.862	ug/L	2.654
Zn	67	11747.080	1621.192	49.371	ug/L	1.072
Zn	68	36232.501	547.025	49.954	ug/L	1.370
> Ge	72	128131.612	122013.611		ug/L	
As r	75	61335.203	223.994	49.920	ug/L	2.705
As u	75	63433.526	4344.270	49.973	ug/L	2.677
Se r	82	6367.774	7.818	49.904	ug/L	2.263
Se	77	5982.361	1256.524	49.956	ug/L	4.710
Sr	88	773201.421	250.673	49.895	ug/L	0.766
Ag r	107	288140.895	70.668	49.904	ug/L	3.369
Ag	109	271274.277	62.668	49.927	ug/L	2.094
Cd r	111	67319.924	294.635	49.949	ug/L	2.028
Cd	106	3161.278	-2719.513	50.158	ug/L	2.335
Cd	108	1397.315	-2883.440	50.095	ug/L	1.934
Cd	114	153173.958	236.018	49.951	ug/L	1.178
Cd u	111	67343.212	99.335	49.941	ug/L	1.990
> In	115	215138.630	216166.642		ug/L	
Sb r	123	163863.826	58.080	49.972	ug/L	1.421
Sb	121	213517.872	76.668	49.962	ug/L	0.768

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Sample ID: Standard 2

T	Sn	118	205701.353	148.670	<b>50.039</b>	ug/L	2.018
T	Sn r	120	273722.652	219.339	<b>49.988</b>	ug/L	1.749
T	Ba r	137	108184.248	50.001	<b>50.040</b>	ug/L	2.620
T	Ba	135	61200.773	25.000	<b>49.990</b>	ug/L	1.101
>	Tb	159	232944.596	244819.515		ug/L	
T	Tl r	205	469146.251	839.721	<b>49.964</b>	ug/L	1.773
T	Tl	203	199432.303	360.345	<b>49.996</b>	ug/L	2.805
T	U	238	725015.980	24.334	<b>49.924</b>	ug/L	0.629
L	Pb	208	643348.243	6009.054	<b>49.958</b>	ug/L	2.683
T	Kr	83	287.342	251.007		ug/L	
T	Cl	35	31553771.695	28732582.996		mg/L	
T	C	12	429155.435	386459.208		mg/L	
T	Y	89	240301.304	239993.678		ug/L	
T	Br	79	13928.747	1790.227	<b>50.025</b>	ug/L	3.990
T	Br	81	24914.208	12370.400	<b>49.993</b>	ug/L	4.839
>	Ge-1	72	128131.612	122013.611		ug/L	
T	Ru	99	17.334	2.333		ug/L	
T	Pd	105	2791.535	2440.412		ug/L	
T	Ho	165	227370.181	225360.332		ug/L	
T	Th	232	688693.003	49.667	<b>49.951</b>	ug/L	1.287
T	Mo	95	124054.282	128.336	<b>49.971</b>	ug/L	1.261
T	Mo	97	78658.586	76.334	<b>50.024</b>	ug/L	1.514
T	Mo r	98	200084.899	184.560	<b>49.986</b>	ug/L	1.628
T	Rh	103	70.334	13.333		ug/L	
>	In-1	115	215138.630	216166.642		ug/L	
T	Tl	47	478.686	308.676		ug/L	
T	Li	7	21701.465	24149.430		mg/L	

**QC Out Of Limits (only failed QC will appear below)**

Measurement Type	Mass	Out of Limits Message
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**ELAN 6100 Quantitative Analysis - Summary Report**

User Name: R.COSTAS User

**Sample ID: Standard 3**

Sample Description:

Autosampler Position: 4

Sample Date/Time: Wednesday, March 14, 2012 12:18:23

Dataset File: C:\Elandata\Dataset\EL120216\Standard 3.086

Optimization File: C:\Elandata\Optimize\epa.dac

Method File: C:\Elandata\Method\EPA\2008.MTH + B,Sr,Sn,U,Br - 1 CAL STD DIMOCK.mth

Calibration File:

Report Title: QUANTITATIVE ANALYSIS REPORT

analysis 200.8 or equivalent

SITE: DIMOCK WO1202004 *(L3.117)*

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Sample Unit	Conc. RSD
Be r	9	26932.011	1.333	<b>101.091</b>	ug/L	4.065
> Li u	6	245093.229	334987.888		ug/L	
L Li	6	243450.533	333029.370		ug/L	
> Be	9	26932.011	1.333	<b>97.531</b>	ug/L	2.312
B	11	38405.760	157.337	<b>97.900</b>	ug/L	5.061
> Al	27	482677.919	1977.608	<b>98.995</b>	ug/L	1.267
> Sc	45	500870.903	443380.651		ug/L	
V r	51	879922.907	2664.161	<b>98.447</b>	ug/L	1.835
Vu	51	1007786.709	86078.430	<b>97.996</b>	ug/L	0.856
Cr r	52	699527.145	9512.307	<b>98.165</b>	ug/L	1.264
Cr	53	121928.016	28695.823	<b>96.233</b>	ug/L	2.012
Mn	55	1023632.176	2161.992	<b>98.244</b>	ug/L	2.588
Co	59	715338.736	47.001	<b>97.306</b>	ug/L	2.598
Ni r	60	154467.863	461.019	<b>97.969</b>	ug/L	1.903
Ni	62	22453.957	171.004	<b>96.898</b>	ug/L	2.007
Cu r	63	319002.249	603.697	<b>97.220</b>	ug/L	1.593
Cu	65	155209.816	289.675	<b>97.581</b>	ug/L	2.231
> Zn r	66	89535.021	537.024	<b>99.379</b>	ug/L	0.693
Zn	67	19895.235	1621.192	<b>98.451</b>	ug/L	0.835
Zn	68	67709.392	547.025	<b>99.463</b>	ug/L	0.504
> Ge	72	123696.974	122013.611		ug/L	
As r	75	116009.370	223.994	<b>99.574</b>	ug/L	1.666
As u	75	116996.678	4344.270	<b>99.788</b>	ug/L	1.634
Se r	82	11941.469	7.818	<b>99.365</b>	ug/L	0.522
Se	77	10537.925	1256.524	<b>100.562</b>	ug/L	2.094
Sr	88	1444079.062	250.673	<b>99.267</b>	ug/L	0.372
Ag r	107	548611.730	70.668	<b>99.622</b>	ug/L	2.842
Ag	109	521449.950	62.668	<b>99.828</b>	ug/L	2.272
Cd r	111	130020.385	294.635	<b>99.979</b>	ug/L	2.593
Cd	106	9156.174	-2719.513	<b>100.804</b>	ug/L	0.902
Cd	108	5996.236	-2883.440	<b>101.266</b>	ug/L	2.313
Cd	114	290495.419	236.018	<b>99.576</b>	ug/L	3.358
Cd u	111	130380.635	99.335	<b>99.996</b>	ug/L	2.691
> In	115	208201.851	216166.642		ug/L	
Sb r	123	316132.141	58.080	<b>99.931</b>	ug/L	2.993
Sb	121	421794.449	76.668	<b>100.410</b>	ug/L	0.975

Report Date/Time: Wednesday, March 14, 2012 12:21:45

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Sample ID: Standard 3

	Sn	118	386068.908	148.670	<b>98.526</b>	ug/L	1.774
	Sn r	120	529717.216	219.339	<b>99.159</b>	ug/L	2.368
	Ba r	137	206140.267	50.001	<b>98.845</b>	ug/L	2.450
	Ba	135	120737.880	25.000	<b>99.561</b>	ug/L	2.756
>	Tb	159	234717.322	244819.515		ug/L	
	Tl r	205	914444.221	839.721	<b>96.764</b>	ug/L	3.572
	Tl	203	390925.561	360.345	<b>97.344</b>	ug/L	1.539
	U	238	1427183.348	24.334	<b>99.485</b>	ug/L	2.968
	Pb	208	1237682.101	6009.054	<b>99.100</b>	ug/L	1.732
	Kr	83	268.341	251.007		ug/L	
	Cl	35	32751056.655	28732582.996		mg/L	
	C	12	452373.553	386459.208		mg/L	
	Y	89	240473.856	239993.678		ug/L	
>	Br	79	25432.227	1790.227	<b>100.322</b>	ug/L	1.584
	Br	81	35535.600	12370.400	<b>99.973</b>	ug/L	3.064
>	Ge-1	72	123696.974	122013.611		ug/L	
	Ru	99	30.334	2.333		ug/L	
	Pd	105	2738.848	2440.412		ug/L	
	Ho	165	222322.576	225360.332		ug/L	
	Th	232	1319712.801	49.667	<b>99.086</b>	ug/L	1.783
>	Mo	95	241965.983	128.336	<b>100.167</b>	ug/L	3.671
	Mo	97	150239.187	76.334	<b>99.748</b>	ug/L	1.791
	Mo r	98	391037.981	184.560	<b>100.204</b>	ug/L	2.029
	Rh	103	110.002	13.333		ug/L	
>	In-1	115	208201.851	216166.642		ug/L	
	Tl	47	589.362	308.676		ug/L	
	Li	7	20255.193	24149.430		mg/L	

**QC Out Of Limits (only failed QC will appear below)**

Measurement Type	Mass	Out of Limits Message
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**ELAN 6100 Quantitative Analysis - Summary Report**

User Name: R.COSTAS User

**Sample ID: QC Std 2**

Sample Description:

Autosampler Position: 3

Sample Date/Time: Wednesday, March 14, 2012 12:23:32

Dataset File: C:\Elandata\Dataset\EL120216\QC Std 2.087

Optimization File: C:\Elandata\Optimize\epa.dac

Method File: C:\Elandata\Method\EPA\2008.MTH + B,Sr,Sn,U,Br - 1 CAL STD DIMOCK.mth

Calibration File:

Report Title: QUANTITATIVE ANALYSIS REPORT

analysis 200.8 or equivalent

SITE: DIMOCK WO1202004-300 ✓ FC 3-14-12

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Sample Unit	Conc. RSD
Be r	9	13063.214	1.333	<b>52.947</b>	ug/L	1.909
> Li u	6	226734.921	334987.888		ug/L	
L Li	6	225192.560	333029.370		ug/L	
T Be	9	13063.214	1.333	<b>49.366</b>	ug/L	1.041
T B	11	19298.710	157.337	<b>51.101</b>	ug/L	1.840
T Al	27	248028.292	1977.608	<b>52.882</b>	ug/L	1.086
> Sc	45	479876.872	443380.651		ug/L	
V r	51	442965.745	2664.161	<b>51.575</b>	ug/L	2.499
Vu	51	554856.586	86078.430	<b>51.865</b>	ug/L	1.820
Cr r	52	362422.959	9512.307	<b>52.378</b>	ug/L	1.888
Cr	53	78072.422	28695.823	<b>52.747</b>	ug/L	3.579
Mn	55	514970.426	2161.992	<b>51.461</b>	ug/L	1.036
Co	59	365533.160	47.001	<b>51.879</b>	ug/L	1.273
Ni r	60	76515.521	461.019	<b>50.489</b>	ug/L	1.899
Ni	62	11727.386	171.004	<b>52.435</b>	ug/L	2.058
Cu r	63	161162.053	603.697	<b>51.164</b>	ug/L	1.793
Cu	65	79689.717	289.675	<b>52.190</b>	ug/L	3.139
Zn r	66	45651.221	537.024	<b>51.864</b>	ug/L	0.380
Zn	67	11323.777	1621.192	<b>54.023</b>	ug/L	2.903
Zn	68	34945.883	547.025	<b>52.466</b>	ug/L	2.306
> Ge	72	120176.172	122013.611		ug/L	
As r	75	59142.083	223.994	<b>52.171</b>	ug/L	0.925
As u	75	60591.338	4344.270	<b>51.381</b>	ug/L	0.881
Se r	82	6099.690	7.818	<b>52.219</b>	ug/L	1.170
Se	77	5878.740	1256.524	<b>51.877</b>	ug/L	2.702
Sr	88	753090.004	250.673	<b>53.277</b>	ug/L	0.500
Ag r	107	283925.608	70.668	<b>52.240</b>	ug/L	1.507
Ag	109	267099.718	62.668	<b>51.823</b>	ug/L	0.918
Cd r	111	65329.736	294.635	<b>50.808</b>	ug/L	1.173
Cd	106	3290.372	-2719.513	<b>50.979</b>	ug/L	2.796
Cd	108	1492.749	-2883.440	<b>49.511</b>	ug/L	1.810
Cd	114	145222.585	236.018	<b>50.408</b>	ug/L	1.258
Cd u	111	65305.087	99.335	<b>50.727</b>	ug/L	1.399
> In	115	205410.529	216166.642		ug/L	
Sb r	123	158344.270	58.080	<b>50.716</b>	ug/L	2.030
Sb	121	211012.202	76.668	<b>50.902</b>	ug/L	0.636

Report Date/Time: Wednesday, March 14, 2012 12:26:53

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Sample ID: QC Std 2

	Sn	118	195836.539	148.670	<b>51.211</b>	ug/L	1.962
	Sn r	120	268547.904	219.339	<b>51.511</b>	ug/L	2.286
	Ba r	137	104095.717	50.001	<b>51.146</b>	ug/L	0.594
	Ba	135	60464.729	25.000	<b>51.083</b>	ug/L	1.150
>	Tb	159	228996.624	244819.515		ug/L	
	Tl r	205	464693.471	839.721	<b>50.360</b>	ug/L	2.492
	Tl	203	193983.292	360.345	<b>49.472</b>	ug/L	1.862
	U	238	729647.958	24.334	<b>52.137</b>	ug/L	2.948
	Pb	208	620636.866	6009.054	<b>50.716</b>	ug/L	2.552
	Kr	83	268.674	251.007		ug/L	
	Cl	35	31312374.501	28732582.996		mg/L	
	C	12	409004.464	386459.208		mg/L	
	Y	89	229716.256	239993.678		ug/L	
>	Br	79	13926.736	1790.227	<b>53.192</b>	ug/L	3.042
	Br	81	23756.873	12370.400	<b>51.809</b>	ug/L	5.575
>	Ge-1	72	120176.172	122013.611		ug/L	
	Ru	99	16.000	2.333		ug/L	
	Pd	105	2637.812	2440.412		ug/L	
	Ho	165	210629.200	225360.332		ug/L	
	Th	232	683200.316	49.667	<b>51.294</b>	ug/L	1.350
>	Mo	95	121475.191	128.336	<b>50.922</b>	ug/L	0.881
	Mo	97	76003.395	76.334	<b>51.118</b>	ug/L	1.814
	Mo r	98	197354.124	184.560	<b>51.237</b>	ug/L	2.443
	Rh	103	73.668	13.333		ug/L	
>	In-1	115	205410.529	216166.642		ug/L	
	Ti	47	492.021	308.676		ug/L	
	Li	7	19018.016	24149.430		mg/L	

**QC Out Of Limits (only failed QC will appear below)**

Measurement Type	Mass	Out of Limits Message
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**ELAN 6100 Quantitative Analysis - Summary Report**

User Name: R.COSTAS User

**Sample ID: QC Std 4**

Sample Description:

Autosampler Position: 1

Sample Date/Time: Wednesday, March 14, 2012 12:28:29

Dataset File: C:\Elandata\Dataset\EL120216\QC Std 4.088

Optimization File: C:\Elandata\Optimize\epa.dac

Method File: C:\Elandata\Method\EPA12008.MTH + B,Sr,Sn,U,Br - 1 CAL STD DIMOCK.mth

Calibration File:

Report Title: QUANTITATIVE ANALYSIS REPORT

analysis 200.8 or equivalent

SITE: DIMOCK WO1202004

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Sample Unit	Conc. RSD
Be r	9	1.333	1.333	0.002	ug/L	387.768
> Li u	6	238236.837	334987.888		ug/L	
L Li	6	236593.980	333029.370		ug/L	
> Be	9	1.333	1.333	-0.000	ug/L	6139.089
> B	11	339.011	157.337	0.512	ug/L	32.264
> Al	27	1966.605	1977.608	-0.009	ug/L	352.400
> Sc	45	449638.127	443380.651		ug/L	
> V r	51	2877.054	2664.161	0.022	ug/L	187.226
> Vu	51	115301.196	86078.430	3.360	ug/L	18.732
> Cr r	52	9719.568	9512.307	0.012	ug/L	166.075
> Cr	53	38282.522	28695.823	10.998	ug/L	18.794
> Mn	55	1379.137	2161.992	-0.087	ug/L	5.358
> Co	59	51.334	47.001	0.001	ug/L	127.030
> Ni r	60	362.013	461.019	-0.074	ug/L	132.026
> Ni	62	178.004	171.004	0.023	ug/L	649.116
> Cu r	63	722.041	603.697	0.037	ug/L	34.069
> Cu	65	338.011	289.675	0.031	ug/L	48.756
> Zn r	66	396.348	537.024	-0.156	ug/L	26.290
> Zn	67	2928.589	1621.192	7.241	ug/L	14.016
> Zn	68	559.026	547.025	0.023	ug/L	297.766
> Ge	72	121255.979	122013.611		ug/L	
> As r	75	409.308	223.994	0.162	ug/L	143.930
> As u	75	4150.495	4344.270	-0.152	ug/L	50.450
> Se r	82	-18.755	7.818	-0.224	ug/L	66.829
> Se	77	1166.296	1256.524	-0.906	ug/L	87.755
> Sr	88	263.674	250.673	0.001	ug/L	243.435
> Ag r	107	65.334	70.668	-0.001	ug/L	280.931
> Ag	109	62.334	62.668	-0.000	ug/L	11807.785
> Cd r	111	261.643	294.635	-0.023	ug/L	43.912
> Cd	106	-2867.263	-2719.513	-1.332	ug/L	139.048
> Cd	108	-3034.586	-2883.440	-1.842	ug/L	139.457
> Cd	114	129.545	236.018	-0.035	ug/L	7.156
> Cd u	111	59.668	99.335	-0.029	ug/L	58.265
> In	115	215081.908	216166.642		ug/L	
> Sb r	123	65.831	58.080	0.002	ug/L	100.858
> Sb	121	84.001	76.668	0.002	ug/L	249.625

Report Date/Time: Wednesday, March 14, 2012 12:31:49

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Sample ID: QC Std 4

	Sn	118	278.008	148.670	0.034	ug/L	45.865
	Sn r	120	368.013	219.339	0.029	ug/L	45.041
	Ba r	137	58.334	50.001	0.005	ug/L	30.543
	Ba	135	30.000	25.000	0.005	ug/L	99.817
>	Tb	159	236041.199	244819.515		ug/L	
	Tl r	205	3064.658	839.721	0.239	ug/L	31.555
	Tl	203	1286.791	360.345	0.234	ug/L	37.714
	U	238	107.669	24.334	0.006	ug/L	39.236
L	Pb	208	1688.758	6009.054	-0.328	ug/L	4.557
	Kr	83	278.341	251.007		ug/L	
	Cl	35	30935388.790	28732582.996		mg/L	
	C	12	363660.440	386459.208		mg/L	
	Y	89	234218.161	239993.678		ug/L	
>	Br	79	2199.670	1790.227	1.830	ug/L	32.527
	Br	81	13215.475	12370.400	4.103	ug/L	30.559
>	Ge-1	72	121255.979	122013.611		ug/L	
	Ru	99	2.333	2.333		ug/L	
	Pd	105	2567.123	2440.412		ug/L	
	Ho	165	222667.632	225360.332		ug/L	
	Th	232	2890.271	49.667	0.213	ug/L	30.702
>	Mo	95	246.007	128.336	0.047	ug/L	51.717
	Mo	97	162.003	76.334	0.055	ug/L	11.859
	Mo r	98	400.757	184.560	0.054	ug/L	27.608
	Rh	103	8.000	13.333		ug/L	
>	In-1	115	215081.908	216166.642		ug/L	
	Ti	47	371.679	308.676		ug/L	
	Li	7	20257.176	24149.430		mg/L	

#### QC Out Of Limits (only failed QC will appear below)

Measurement Type	Mass	Out of Limits Message
QC Std 4	B	IBL (LCB) is out of limits ( +/- 0.400ug/L)
QC Std 4	V u	IBL (LCB) is out of limits ( +/- 0.400ug/L)
QC Std 4	Cr	IBL (LCB) is out of limits ( +/- 0.400ug/L)
QC Std 4	Zn	IBL (LCB) is out of limits ( +/- 0.400ug/L)
QC Std 4	Cd	IBL (LCB) is out of limits ( +/- 0.400ug/L)
QC Std 4	Cd	IBL (LCB) is out of limits ( +/- 0.400ug/L)
QC Std 4	Br	IBL (LCB) is out of limits ( +/- 0.400ug/L)
QC Std 4	Br	IBL (LCB) is out of limits ( +/- 0.400ug/L)

# ELAN 6100 Quantitative Analysis - Summary Report

User Name: R.COSTAS User

## Sample ID: QC Std 5

Sample Description:

Autosampler Position: 5

Sample Date/Time: Wednesday, March 14, 2012 12:33:27

Dataset File: C:\Elandata\Dataset\EL120216\QC Std 5.089

Optimization File: C:\Elandata\Optimize\epa.dac

Method File: C:\Elandata\Method\EPA\2008.MTH + B,Sr,Sn,U,Br - 1 CAL STD DIMOCK.mth

Calibration File:

Report Title: QUANTITATIVE ANALYSIS REPORT

analysis 200.8 or equivalent

SITE: DIMOCK WO1202004 3001 2012-03-14-12

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Sample Unit	Conc. RSD
Be r	9	27238.087	1.333	102.334	ug/L	2.555
Li u	6	244565.898	334987.888		ug/L	
Li	6	235492.818	333029.370		ug/L	
Be	9	27238.087	1.333	103.236	ug/L	0.728
B	11	39653.413	157.337	105.782	ug/L	2.815
Al	27	489264.762	1977.608	105.083	ug/L	3.252
Sc	45	478518.001	443380.651		ug/L	
V r	51	812989.455	2664.161	95.228	ug/L	1.563
V u	51	927242.423	86078.430	94.004	ug/L	1.125
Cr r	52	690513.986	9512.307	101.492	ug/L	1.615
Cr	53	114383.103	28695.823	93.865	ug/L	2.096
Mn	55	1004408.035	2161.992	100.899	ug/L	1.405
Co	59	724564.563	47.001	103.160	ug/L	2.040
Ni r	60	152519.257	461.019	101.300	ug/L	3.318
Ni	62	23157.713	171.004	104.710	ug/L	3.870
Cu r	63	324549.430	603.697	103.571	ug/L	3.152
Cu	65	159428.961	289.675	104.952	ug/L	2.770
Zn r	66	89426.824	537.024	103.636	ug/L	1.940
Zn	67	19410.654	1621.192	100.434	ug/L	0.288
Zn	68	69438.388	547.025	106.531	ug/L	1.242
Ge	72	118503.692	122013.611		ug/L	
As r	75	111875.489	223.994	100.256	ug/L	1.505
As u	75	111376.730	4344.270	99.156	ug/L	2.098
Se r	82	11619.750	7.818	100.928	ug/L	0.408
Se	77	9956.565	1256.524	99.005	ug/L	1.279
Sr	88	1412350.687	250.673	101.338	ug/L	0.151
Ag r	107	258887.192	70.668	48.996	ug/L	1.461
Ag	109	243189.347	62.668	48.531	ug/L	2.149
Cd r	111	127060.228	294.635	101.862	ug/L	0.461
Cd	106	9199.014	-2719.513	104.525	ug/L	0.585
Cd	108	5834.832	-2883.440	102.268	ug/L	3.257
Cd	114	282871.815	236.018	101.075	ug/L	1.511
Cd u	111	127138.731	99.335	101.657	ug/L	0.550
In	115	199692.801	216166.642		ug/L	
Sb r	123	309603.596	58.080	102.006	ug/L	0.172
Sb	121	410783.591	76.668	101.948	ug/L	1.819

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Sample ID: QC Std 5

	<b>Sn</b>	118	172.337	148.670	<b>0.009</b>	ug/L	77.381
	<b>Sn r</b>	120	240.673	219.339	<b>0.007</b>	ug/L	34.246
	<b>Ba r</b>	137	209173.001	50.001	<b>103.437</b>	ug/L	3.215
	<b>Ba</b>	135	122095.251	25.000	<b>103.809</b>	ug/L	2.165
>	<b>Tb</b>	159	227665.632	244819.515		ug/L	
	<b>Tl r</b>	205	899087.166	839.721	<b>98.069</b>	ug/L	1.978
	<b>Tl</b>	203	376502.221	360.345	<b>96.645</b>	ug/L	0.008
	<b>U</b>	238	41.001	24.334	<b>0.001</b>	ug/L	80.073
L	<b>Pb</b>	208	1226595.933	6009.054	<b>101.284</b>	ug/L	2.444
	<b>Kr</b>	83	251.340	251.007		ug/L	
	<b>Cl</b>	35	27346692.378	28732582.996		mg/L	
	<b>C</b>	12	377931.828	386459.208		mg/L	
	<b>Y</b>	89	224440.427	239993.678		ug/L	
	<b>Br</b>	79	1989.277	1790.227	<b>1.111</b>	ug/L	3.690
	<b>Br</b>	81	12265.561	12370.400	<b>1.140</b>	ug/L	53.947
>	<b>Ge-1</b>	72	118503.692	122013.611		ug/L	
	<b>Ru</b>	99	35.334	2.333		ug/L	
	<b>Pd</b>	105	2513.436	2440.412		ug/L	
	<b>Ho</b>	165	209795.160	225360.332		ug/L	
	<b>Th</b>	232	3926.899	49.667	<b>0.291</b>	ug/L	54.212
	<b>Mo</b>	95	232836.209	128.336	<b>100.455</b>	ug/L	3.720
	<b>Mo</b>	97	144043.308	76.334	<b>99.697</b>	ug/L	3.399
	<b>Mo r</b>	98	369022.850	184.560	<b>98.588</b>	ug/L	3.363
>	<b>Rh</b>	103	111.335	13.333		ug/L	
>	<b>In-1</b>	115	199692.801	216166.642		ug/L	
	<b>Tl</b>	47	65912.185	308.676		ug/L	
	<b>Li</b>	7	111875.221	24149.430		mg/L	

**QC Out Of Limits (only failed QC will appear below)**

Measurement Type	Mass	Out of Limits Message
QC Std 5	U 238	SCV (LVM) is out of limits ( +/- 10%)

**ELAN 6100 Quantitative Analysis - Summary Report**

User Name: R.COSTAS User

**Sample ID: QC Std 6**

Sample Description:

Autosampler Position: 9

Sample Date/Time: Wednesday, March 14, 2012 12:38:25

Dataset File: C:\Elandata\Dataset\EL120216\QC Std 6.090

Optimization File: C:\Elandata\Optimize\epa.dac

Method File: C:\Elandata\Method\EPA2008.MTH + B,Sr,Sn,U,Br - 1 CAL STD DIMOCK.mth

Calibration File:

Report Title: QUANTITATIVE ANALYSIS REPORT

analysis 200.8 or equivalent

SITE: DIMOCK WO1202004

RC 3-14-12

✓  
PB

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Sample Unit	Conc. RSD
Be r	9	99.335	1.333	0.362	ug/L	15.684
> Li u	6	249748.211	334987.888		ug/L	
Li	6	248066.972	333029.370		ug/L	
Be	9	99.335	1.333	0.388	ug/L	13.721
B	11	455.018	157.337	0.820	ug/L	22.647
Al	27	4425.317	1977.608	0.537	ug/L	5.518
> Sc	45	457906.747	443380.651		ug/L	
V r	51	8410.040	2664.161	0.697	ug/L	38.277
V u	51	120802.431	86078.430	3.755	ug/L	11.217
Cr r	52	12839.169	9512.307	0.470	ug/L	5.156
Cr	53	38868.428	28695.823	10.851	ug/L	13.020
Mn	55	5668.144	2161.992	0.362	ug/L	4.045
Co	59	3173.353	47.001	0.465	ug/L	3.772
Ni r	60	1011.410	461.019	0.373	ug/L	11.809
Ni	62	258.674	171.004	0.391	ug/L	15.031
Cu r	63	2181.998	603.697	0.521	ug/L	6.150
Cu	65	1059.084	289.675	0.524	ug/L	4.133
Zn r	66	789.382	537.024	0.273	ug/L	20.894
Zn	67	2989.612	1621.192	7.262	ug/L	14.430
Zn	68	893.061	547.026	0.501	ug/L	16.827
> Ge	72	123763.392	122013.611		ug/L	
As r	75	786.895	223.994	0.481	ug/L	11.341
As u	75	4539.385	4344.270	0.119	ug/L	120.829
Se r	82	67.026	7.818	0.492	ug/L	45.121
Se	77	1244.409	1256.524	-0.320	ug/L	206.383
Sr	88	7018.938	250.673	0.465	ug/L	1.120
Ag r	107	2566.120	70.668	0.437	ug/L	1.208
Ag	109	2357.052	62.668	0.424	ug/L	3.080
Cd r	111	818.473	294.635	0.390	ug/L	1.805
Cd	106	-2753.503	-2719.513	-0.333	ug/L	415.744
Cd	108	-2946.133	-2883.440	-0.772	ug/L	226.026
Cd	114	1383.637	236.018	0.380	ug/L	6.966
Cd u	111	610.364	99.335	0.379	ug/L	0.387
> In	115	215668.946	216166.642		ug/L	
Sb r	123	1449.357	58.080	0.425	ug/L	6.036
Sb	121	1932.262	76.668	0.426	ug/L	0.554

Report Date/Time: Wednesday, March 14, 2012 12:41:44

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Sample ID: QC Std 6

	Sn	118	1882.916	148.670	0.427	ug/L	4.542
	Sn r	120	2608.802	219.339	0.432	ug/L	3.057
	Ba r	137	938.733	50.001	0.411	ug/L	3.677
	Ba	135	535.024	25.000	0.406	ug/L	9.753
>	Tb	159	243358.553	244819.515		ug/L	
	Tl r	205	5396.948	839.721	0.466	ug/L	1.711
	Tl	203	2188.000	360.345	0.440	ug/L	3.193
	U	238	6604.235	24.334	0.443	ug/L	4.745
>	Pb	208	7146.046	6009.054	0.091	ug/L	16.090
	Kr	83	265.674	251.007		ug/L	
	Cl	35	30194728.055	28732582.996		mg/L	
	C	12	378260.796	386459.208		mg/L	
	Y	89	239766.227	239993.678		ug/L	
>	Br	79	2069.966	1790.227	1.077	ug/L	19.377
	Br	81	12867.563	12370.400	1.384	ug/L	153.910
>	Ge-1	72	123763.392	122013.611		ug/L	
	Ru	99	1.000	2.333		ug/L	
	Pd	105	2525.107	2440.412		ug/L	
	Ho	165	230195.826	225360.332		ug/L	
	Th	232	5455.995	49.667	0.406	ug/L	7.213
>	Mo	95	1420.479	128.336	0.516	ug/L	2.514
	Mo	97	852.723	76.334	0.497	ug/L	9.026
	Mo r	98	2159.365	184.560	0.488	ug/L	7.069
	Rh	103	16.000	13.333		ug/L	
>	In-1	115	215668.946	216166.642		ug/L	
	Ti	47	375.680	308.676		ug/L	
	Li	7	20730.443	24149.430		mg/L	

#### QC Out Of Limits (only failed QC will appear below)

Measurement Type	Mass	Out of Limits Message
QC Std 6	B 11	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	V r 51	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	V u 51	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	Cr 53	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	Zn 67	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	As u 75	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	Cd 106	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	Cd 108	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	Pb 208	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	Br 79	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	Br 81	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)

**ELAN 6100 Quantitative Analysis - Summary Report**

User Name: R.COSTAS User

**Sample ID: QC Std 7**

Sample Description:

Autosampler Position: 10

Sample Date/Time: Wednesday, March 14, 2012 12:43:05

Dataset File: C:\Elandata\Dataset\EL120216\QC Std 7.091

Optimization File: C:\Elandata\Optimize\epa.dac

Method File: C:\Elandata\Method\EPA\2008.MTH + B,Sr,Sn,U,Br - 1 CAL STD DIMOCK.mth

Calibration File:

Report Title: QUANTITATIVE ANALYSIS REPORT

analysis 200.8 or equivalent

SITE: DIMOCK WO1202004

RL 3.14.12

L 0.8  
OK  
OK

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Sample Unit	Conc. RSD
Be r	9	209.672	1.333	0.780	ug/L	2.239
Li u	6	245827.489	334987.888		ug/L	
Li	6	244162.321	333029.370		ug/L	
Be	9	209.672	1.333	0.811	ug/L	1.343
B	11	551.025	157.337	1.062	ug/L	4.238
Al	27	6449.101	1977.608	0.969	ug/L	2.003
Sc	45	465666.363	443380.651		ug/L	
V r	51	10661.383	2664.161	0.950	ug/L	10.280
V u	51	127335.605	86078.430	4.277	ug/L	14.314
Cr r	52	16004.794	9512.307	0.922	ug/L	4.945
Cr	53	40254.270	28695.823	11.704	ug/L	19.776
Mn	55	10169.153	2161.992	0.817	ug/L	1.568
Co	59	6425.080	47.001	0.933	ug/L	1.845
Ni r	60	1626.522	461.019	0.782	ug/L	7.891
Ni	62	368.012	171.004	0.883	ug/L	10.450
Cu r	63	3658.240	603.697	0.994	ug/L	4.226
Cu	65	1759.552	289.675	0.986	ug/L	2.607
Zn r	66	1198.772	537.024	0.738	ug/L	5.812
Zn	67	3206.036	1621.192	8.530	ug/L	16.358
Zn	68	1140.096	547.025	0.877	ug/L	3.823
Ge	72	123011.353	122013.611		ug/L	
As r	75	1421.313	223.994	1.034	ug/L	14.303
As u	75	5372.263	4344.270	0.885	ug/L	11.631
Se r	82	105.209	7.818	0.815	ug/L	9.671
Se	77	1359.632	1256.524	1.013	ug/L	20.768
Sr	88	13672.953	250.673	0.928	ug/L	2.817
Ag r	107	5185.466	70.668	0.887	ug/L	1.120
Ag	109	4905.279	62.668	0.885	ug/L	1.034
Cd r	111	1354.397	294.635	0.778	ug/L	4.021
Cd	106	-2868.388	-2719.513	-1.017	ug/L	159.494
Cd	108	-3036.956	-2883.440	-1.407	ug/L	157.823
Cd	114	2812.732	236.018	0.843	ug/L	1.961
Cd u	111	1177.435	99.335	0.789	ug/L	3.002
In	115	218064.288	216166.642		ug/L	
Sb r	123	2892.234	58.080	0.855	ug/L	1.105
Sb	121	3846.000	76.668	0.857	ug/L	0.710

Report Date/Time: Wednesday, March 14, 2012 12:46:25

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Sample ID: QC Std 7

	Sn	118	3610.217	148.670	0.857	ug/L	4.538
	Sn r	120	5010.016	219.339	0.871	ug/L	6.434
	Ba r	137	1919.259	50.001	0.869	ug/L	2.463
	Ba	135	1128.427	25.000	0.882	ug/L	4.234
>	Tb	159	242204.616	244819.515		ug/L	
	Tl r	205	9336.763	839.721	0.873	ug/L	6.060
	Tl	203	3900.696	360.345	0.857	ug/L	7.291
	U	238	13782.142	24.334	0.930	ug/L	4.250
>	Pb	208	12992.455	6009.054	0.550	ug/L	4.745
	Kr	83	283.341	251.007		ug/L	
	Cl	35	30947571.453	28732582.996		mg/L	
	C	12	382368.005	386459.208		mg/L	
	Y	89	240671.735	239993.678		ug/L	
>	Br	79	2214.008	1790.227	1.747	ug/L	19.679
	Br	81	13113.634	12370.400	2.806	ug/L	19.778
>	Ge-1	72	123011.353	122013.611		ug/L	
	Ru	99	1.000	2.333		ug/L	
	Pd	105	2646.483	2440.412		ug/L	
	Ho	165	227984.116	225360.332		ug/L	
	Th	232	11903.336	49.667	0.890	ug/L	4.944
>	Mo	95	2238.348	128.336	0.834	ug/L	2.409
	Mo	97	1420.479	76.334	0.852	ug/L	3.828
	Mo r	98	3676.657	184.560	0.854	ug/L	0.479
	Rh	103	13.000	13.333		ug/L	
>	In-1	115	218064.288	216166.642		ug/L	
	Ti	47	397.014	308.676		ug/L	
	Li	7	20532.276	24149.430		mg/L	

#### QC Out Of Limits (only failed QC will appear below)

Measurement Type	Mass	Out of Limits Message
QC Std 7	V u	LCV (DC1, TV 0.8) is out of limits ( +/- 50%)
QC Std 7	Cr	LCV (DC1, TV 0.8) is out of limits ( +/- 50%)
QC Std 7	Zn	LCV (DC1, TV 0.8) is out of limits ( +/- 50%)
QC Std 7	Cd	LCV (DC1, TV 0.8) is out of limits ( +/- 50%)
QC Std 7	Cd	LCV (DC1, TV 0.8) is out of limits ( +/- 50%)

**ELAN 6100 Quantitative Analysis - Summary Report**

User Name: R.COSTAS User

**Sample ID: BC21301-BLK1** *PL 3.14.12*

Sample Description: 21303 *PL 3.14.12*

Autosampler Position: 17

Sample Date/Time: Wednesday, March 14, 2012 12:50:37

Dataset File: C:\Elandata\Dataset\EL120216\BC21301-BLK1.092

Optimization File: C:\Elandata\Optimize\epa.dac

Method File: C:\Elandata\Method\EPA\2008.MTH + B,Sr,Sn,U,Br - 1 CAL STD DIMOCK.mth

Calibration File: C:\Elandata\System\EL120314.cal

Report Title: QUANTITATIVE ANALYSIS REPORT

analysis 200.8 or equivalent

**SITE: DIMOCK WO1202004** *PL 3.14.12*

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Sample Unit	Conc. RSD
Be r	9	1.000	1.333	0.000	ug/L	9928.642
> Li u	6	247659.214	334987.888		ug/L	
> Li	6	245974.018	333029.370		ug/L	
> Be	9	1.000	1.333	-0.001	ug/L	269.646
> B	11	215.339	157.337	0.140	ug/L	45.819
> Al	27	2619.139	1977.608	0.121	ug/L	13.863
> Sc	45	465024.158	443380.651		ug/L	
> V r	51	5750.827	2664.161	0.355	ug/L	44.400
> Vu	51	118686.928	86078.430	3.284	ug/L	16.770
> Cr r	52	10612.756	9512.307	0.098	ug/L	38.482
> Cr	53	39095.097	28695.823	10.393	ug/L	18.779
> Mn	55	1402.809	2161.992	-0.090	ug/L	4.666
> Co	59	40.667	47.001	-0.001	ug/L	64.033
> Ni r	60	135.669	461.019	-0.239	ug/L	15.059
> Ni	62	139.003	171.004	-0.189	ug/L	17.549
> Cu r	63	625.365	603.697	-0.003	ug/L	296.369
> Cu	65	308.009	289.675	0.003	ug/L	79.610
> Zn r	66	238.339	537.024	-0.345	ug/L	5.858
> Zn	67	2735.183	1621.192	5.729	ug/L	23.009
> Zn	68	417.682	547.025	-0.210	ug/L	14.126
> Ge	72	125050.522	122013.611		ug/L	
> As r	75	134.847	223.994	-0.080	ug/L	105.640
> As u	75	4624.437	4344.270	0.151	ug/L	95.103
> Se r	82	-19.401	7.818	-0.227	ug/L	150.832
> Se	77	1309.343	1256.524	0.230	ug/L	258.285
> Sr	88	107.002	250.673	-0.010	ug/L	3.897
> Ag r	107	47.334	70.668	-0.004	ug/L	24.895
> Ag	109	47.001	62.668	-0.003	ug/L	47.133
> Cd r	111	250.505	294.635	-0.037	ug/L	27.481
> Cd	106	-2846.777	-2719.513	-0.567	ug/L	111.448
> Cd	108	-3036.127	-2883.440	-1.003	ug/L	96.750
> Cd	114	67.742	236.018	-0.056	ug/L	5.975
> Cd u	111	31.000	99.335	-0.051	ug/L	1.840
> In	115	220708.368	216166.642		ug/L	
> Sb r	123	46.164	58.080	-0.004	ug/L	20.988
> Sb	121	43.001	76.668	-0.008	ug/L	12.837

Report Date/Time: Wednesday, March 14, 2012 12:53:58

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Sample ID: BC21301-BLK1

	Sn	118	233.339	148.670	0.021	ug/L	30.964
	Sn r	120	351.678	219.339	0.024	ug/L	27.744
	Ba r	137	44.001	50.001	-0.003	ug/L	66.764
	Ba	135	27.000	25.000	0.002	ug/L	297.430
>	Tb	159	246241.425	244819.515		ug/L	
	Tl r	205	831.053	839.721	-0.001	ug/L	975.372
	Tl	203	340.011	360.345	-0.005	ug/L	218.553
	U	238	17.334	24.334	-0.000	ug/L	39.798
L	Pb	208	1016.037	6009.054	-0.385	ug/L	3.784
	Kr	83	276.008	251.007		ug/L	
	Cl	35	31458115.237	28732582.996		mg/L	
	C	12	478511.854	386459.208		mg/L	
	Y	89	245592.756	239993.678		ug/L	
>	Br	79	1143.096	1790.227	-2.906	ug/L	4.466
	Br	81	12365.054	12370.400	-1.344	ug/L	60.562
>	Ge-1	72	125050.522	122013.611		ug/L	
	Ru	99	1.333	2.333		ug/L	
	Pd	105	2566.454	2440.412		ug/L	
	Ho	165	232370.483	225360.332		ug/L	
	Th	232	461.019	49.667	0.031	ug/L	21.115
>	Mo	95	155.670	128.336	0.010	ug/L	40.567
	Mo	97	88.668	76.334	0.007	ug/L	45.713
	Mo r	98	245.341	184.560	0.014	ug/L	23.366
	Rh	103	11.333	13.333		ug/L	
>	In-1	115	220708.368	216166.642		ug/L	
	Tl	47	374.346	308.676		ug/L	
	Li	7	20779.243	24149.430		mg/L	

**QC Out Of Limits (only failed QC will appear below)**

Measurement Type	Mass	Out of Limits Message
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**ELAN 6100 Quantitative Analysis - Summary Report**

User Name: R.COSTAS User

**Sample ID: BC21301-BS1**

Sample Description: 21203 DC 3/14/12

Autosampler Position: 18

Sample Date/Time: Wednesday, March 14, 2012 12:55:41

Dataset File: C:\Elandata\Dataset\EL120216\BC21301-BS1.093

Optimization File: C:\Elandata\Optimize\epa.dac

Method File: C:\Elandata\Method\EPA\2008.MTH + B,Sr,Sn,U,Br - 1 CAL STD DIMOCK.mth

Calibration File: C:\Elandata\System\EL120314.cal

Report Title: QUANTITATIVE ANALYSIS REPORT

analysis 200.8 or equivalent

**SITE: DIMOCK WO1202004 3001 DC 3/14/12**

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Sample Unit	Conc. RSD
Be r	9	556.693	1.333	<b>2.057</b>	ug/L	8.775
> Li u	6	247914.692	334987.888		ug/L	
L Li	6	244675.420	333029.370		ug/L	
T Be	9	556.693	1.333	<b>2.044</b>	ug/L	10.990
B	11	7826.075	157.337	<b>19.905</b>	ug/L	8.200
Al	27	414551.251	1977.608	<b>86.365</b>	ug/L	9.594
> Sc	45	492707.720	443380.651		ug/L	
V r	51	183701.157	2664.161	<b>20.628</b>	ug/L	5.646
Vu	51	306983.959	86078.430	<b>23.120</b>	ug/L	6.973
Cr r	52	156093.140	9512.307	<b>21.080</b>	ug/L	7.614
Cr	53	58898.957	28695.823	<b>29.511</b>	ug/L	11.011
Mn	55	217436.566	2161.992	<b>21.023</b>	ug/L	7.778
Co	59	155626.505	47.001	<b>21.507</b>	ug/L	5.055
Ni r	60	32790.037	461.019	<b>20.877</b>	ug/L	7.960
Ni	62	5032.035	171.004	<b>21.423</b>	ug/L	7.839
Cu r	63	70299.192	603.697	<b>21.615</b>	ug/L	8.981
Cu	65	34110.537	289.675	<b>21.635</b>	ug/L	8.861
Zn r	66	19841.541	537.024	<b>20.663</b>	ug/L	10.106
Zn	67	7341.913	1621.192	<b>29.138</b>	ug/L	7.269
Zn	68	16938.197	547.025	<b>23.257</b>	ug/L	8.862
> Ge	72	128968.231	122013.611		ug/L	
As r	75	24819.442	223.994	<b>20.301</b>	ug/L	10.937
As u	75	28325.299	4344.270	<b>20.200</b>	ug/L	12.657
Se r	82	2493.737	7.818	<b>19.865</b>	ug/L	9.262
Se	77	3235.292	1256.524	<b>19.878</b>	ug/L	15.183
Sr	88	318507.686	250.673	<b>21.001</b>	ug/L	8.885
Ag r	107	13410.526	70.668	<b>2.275</b>	ug/L	9.305
Ag	109	12598.823	62.668	<b>2.255</b>	ug/L	10.551
Cd r	111	2982.415	294.635	<b>1.941</b>	ug/L	10.539
Cd	106	-2842.064	-2719.513	<b>-0.418</b>	ug/L	283.552
Cd	108	-2997.481	-2883.440	<b>-0.422</b>	ug/L	403.693
Cd	114	6462.217	236.018	<b>2.004</b>	ug/L	7.173
Cd u	111	2872.235	99.335	<b>1.998</b>	ug/L	11.296
> In	115	221809.943	216166.642		ug/L	
Sb r	123	72956.385	58.080	<b>21.647</b>	ug/L	9.476
Sb	121	98682.029	76.668	<b>22.056</b>	ug/L	9.774

Report Date/Time: Wednesday, March 14, 2012 12:59:03

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Sample ID: BC21301-BS1

	<b>Sn</b>	118	87611.416	148.670	<b>21.543</b>	ug/L	10.489
	<b>Sn r</b>	120	119215.502	219.339	<b>21.495</b>	ug/L	9.136
	<b>Ba r</b>	137	173791.324	50.001	<b>80.372</b>	ug/L	6.519
	<b>Ba</b>	135	101418.238	25.000	<b>80.656</b>	ug/L	7.529
>	<b>Tb</b>	159	243384.560	244819.515		ug/L	
	<b>Tl r</b>	205	193987.121	839.721	<b>19.726</b>	ug/L	6.016
	<b>Tl</b>	203	82154.165	360.345	<b>19.665</b>	ug/L	8.296
	<b>U</b>	238	307361.079	24.334	<b>20.663</b>	ug/L	8.049
	<b>Pb</b>	208	269231.817	6009.054	<b>20.426</b>	ug/L	7.776
	<b>Kr</b>	83	282.008	251.007		ug/L	
	<b>Cl</b>	35	32055968.100	28732582.996		mg/L	
	<b>C</b>	12	485115.128	386459.208		mg/L	
	<b>Y</b>	89	246016.270	239993.678		ug/L	
>	<b>Br</b>	79	2981.941	1790.227	<b>4.444</b>	ug/L	13.177
	<b>Br</b>	81	14420.984	12370.400	<b>5.618</b>	ug/L	18.549
>	<b>Ge-1</b>	72	128968.231	122013.611		ug/L	
	<b>Ru</b>	99	7.333	2.333		ug/L	
	<b>Pd</b>	105	2778.864	2440.412		ug/L	
	<b>Ho</b>	165	235207.300	225360.332		ug/L	
>	<b>Th</b>	232	583.696	49.667	<b>0.040</b>	ug/L	26.555
>	<b>Mo</b>	95	54218.393	128.336	<b>21.032</b>	ug/L	7.483
	<b>Mo</b>	97	34267.982	76.334	<b>21.328</b>	ug/L	6.988
	<b>Mo r</b>	98	88518.824	184.560	<b>21.266</b>	ug/L	6.462
	<b>Rh</b>	103	28.667	13.333		ug/L	
>	<b>In-1</b>	115	221809.943	216166.642		ug/L	
	<b>Tl</b>	47	15450.376	308.676		ug/L	
	<b>Li</b>	7	39941.703	24149.430		mg/L	

**QC Out Of Limits (only failed QC will appear below)**

Measurement Type	Mass	Out of Limits Message
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**ELAN 6100 Quantitative Analysis - Summary Report**

User Name: R.COSTAS User

**Sample ID: 1203001-01**

Sample Description:

Autosampler Position: 19

Sample Date/Time: Wednesday, March 14, 2012 13:00:46

Dataset File: C:\Elandata\Dataset\EL120216\1203001-01.094

Optimization File: C:\Elandata\Optimize\epa.dac

Method File: C:\Elandata\Method\EPA\2008.MTH + B,Sr,Sn,U,Br - 1 CAL STD DIMOCK.mth

Calibration File: C:\Elandata\System\EL120314.cal

Report Title: QUANTITATIVE ANALYSIS REPORT

analysis 200.8 or equivalent

**SITE: DIMOCK WO1202004-3001**

Ac 3.14.12

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Sample Unit	Conc. RSD
Be r	9	0.333	1.333	-0.002	ug/L	92.444
> Li u	6	247173.493	334987.888		ug/L	
L	Li	6	245456.580	333029.370	ug/L	
> Be	9	0.333	1.333	-0.004	ug/L	52.117
> B	11	2643.148	157.337	6.606	ug/L	1.980
> Al	27	7608.180	1977.608	1.175	ug/L	4.801
> Sc	45	479849.605	443380.651		ug/L	
> V r	51	5610.346	2664.161	0.323	ug/L	63.950
> Vu	51	133206.294	86078.430	4.509	ug/L	12.849
> Cr r	52	11726.049	9512.307	0.214	ug/L	27.860
> Cr	53	43732.109	28695.823	14.257	ug/L	15.025
> Mn	55	1713.875	2161.992	-0.063	ug/L	3.888
> Co	59	66.001	47.001	0.002	ug/L	49.525
> Ni r	60	163.337	461.019	-0.223	ug/L	5.654
> Ni	62	146.003	171.004	-0.177	ug/L	24.766
> Cu r	63	634.033	603.697	-0.006	ug/L	99.854
> Cu	65	298.342	289.675	-0.010	ug/L	100.929
> Zn r	66	484.353	537.024	-0.090	ug/L	36.788
> Zn	67	3349.763	1621.192	8.427	ug/L	5.813
> Zn	68	641.366	547.025	0.088	ug/L	27.061
> Ge	72	129282.499	122013.611		ug/L	
> As r	75	300.410	223.994	0.051	ug/L	200.272
> As u	75	4910.950	4344.270	0.262	ug/L	31.255
> Se r	82	-16.557	7.818	-0.199	ug/L	83.572
> Se	77	1389.890	1256.524	0.616	ug/L	143.160
> Sr	88	8473.094	250.673	0.540	ug/L	7.075
> Ag r	107	66.001	70.668	-0.001	ug/L	94.343
> Ag	109	48.334	62.668	-0.003	ug/L	88.706
> Cd r	111	277.216	294.635	-0.024	ug/L	33.716
> Cd	106	-2906.358	-2719.513	-0.231	ug/L	342.724
> Cd	108	-3138.121	-2883.440	-0.929	ug/L	100.530
> Cd	114	60.359	236.018	-0.059	ug/L	2.528
> Cd u	111	27.667	99.335	-0.054	ug/L	4.681
> In	115	228573.701	216166.642		ug/L	
> Sb r	123	58.874	58.080	-0.001	ug/L	691.205
> Sb	121	83.668	76.668	0.001	ug/L	568.374

Report Date/Time: Wednesday, March 14, 2012 13:04:09

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Sample ID: 1203001-01

	<b>Sn</b>	118	260.007	148.670	<b>0.024</b>	ug/L	6.699
	<b>Sn r</b>	120	369.346	219.339	<b>0.024</b>	ug/L	28.565
	<b>Ba r</b>	137	134.669	50.001	<b>0.036</b>	ug/L	4.079
	<b>Ba</b>	135	70.668	25.000	<b>0.034</b>	ug/L	30.493
>	<b>Tb</b>	159	256528.871	244819.515		ug/L	
	<b>Tl r</b>	205	1695.544	839.721	<b>0.079</b>	ug/L	44.575
	<b>Tl</b>	203	686.039	360.345	<b>0.070</b>	ug/L	52.681
	<b>U</b>	238	79.335	24.334	<b>0.003</b>	ug/L	22.388
L	<b>Pb</b>	208	858.694	6009.054	<b>-0.400</b>	ug/L	1.040
	<b>Kr</b>	83	294.009	251.007		ug/L	
	<b>Cl</b>	35	33782747.653	28732582.996		mg/L	
	<b>C</b>	12	501928.805	386459.208		mg/L	
	<b>Y</b>	89	252095.451	239993.678		ug/L	
G	<b>Br</b>	79	1260.783	1790.227	<b>-2.582</b>	ug/L	15.621
	<b>Br</b>	81	12335.007	12370.400	<b>-3.210</b>	ug/L	17.695
L>	<b>Ge-1</b>	72	129282.499	122013.611		ug/L	
	<b>Ru</b>	99	2.333	2.333		ug/L	
	<b>Pd</b>	105	2667.156	2440.412		ug/L	
	<b>Ho</b>	165	238420.999	225360.332		ug/L	
	<b>Th</b>	232	209.338	49.667	<b>0.012</b>	ug/L	12.214
G	<b>Mo</b>	95	229.006	128.336	<b>0.035</b>	ug/L	28.185
	<b>Mo</b>	97	143.336	76.334	<b>0.038</b>	ug/L	26.660
	<b>Mo r</b>	98	374.014	184.560	<b>0.042</b>	ug/L	9.051
	<b>Rh</b>	103	10.000	13.333		ug/L	
L>	<b>In-1</b>	115	228573.701	216166.642		ug/L	
	<b>Ti</b>	47	403.681	308.676		ug/L	
	<b>Li</b>	7	21170.320	24149.430		mg/L	

**QC Out Of Limits (only failed QC will appear below)**

Measurement Type	Mass	Out of Limits Message
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**ELAN 6100 Quantitative Analysis - Summary Report**

User Name: R.COSTAS User

**Sample ID: BC21301-DUP1**

Sample Description: 21203 QC 3.14.12

Autosampler Position: 20

Sample Date/Time: Wednesday, March 14, 2012 13:05:52

Dataset File: C:\Elandata\Dataset\EL120216\BC21301-DUP1.095

Optimization File: C:\Elandata\Optimize\epa.dac

Method File: C:\Elandata\Method\EPA\2008.MTH + B,Sr,Sn,U,Br - 1 CAL STD DIMOCK.mth

Calibration File: C:\Elandata\System\EL120314.cal

Report Title: QUANTITATIVE ANALYSIS REPORT

analysis 200.8 or equivalent

**SITE: DIMOCK WO1202004 3001 QC 3.14.12**

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Sample Unit	Conc. RSD
Ber	9	0.667	1.333	-0.001	ug/L	183.174
> Liu	6	246936.783	334987.888		ug/L	
Li	6	243750.213	333029.370		ug/L	
Be	9	0.667	1.333	-0.003	ug/L	66.769
B	11	8167.754	157.337	20.008	ug/L	3.391
Al	27	6772.051	1977.608	0.906	ug/L	5.668
> Sc	45	511593.247	443380.651		ug/L	
Vr	51	4398.734	2664.161	0.146	ug/L	139.606
Vu	51	135797.000	86078.430	3.844	ug/L	3.793
Cr r	52	10886.141	9512.307	-0.012	ug/L	209.494
Cr	53	44848.822	28695.823	12.359	ug/L	7.245
Mn	55	915680.470	2161.992	85.986	ug/L	1.649
Co	59	219.005	47.001	0.022	ug/L	10.132
Ni r	60	971.404	461.019	0.274	ug/L	11.135
Ni	62	156.670	171.004	-0.173	ug/L	14.536
Cu r	63	4857.917	603.697	1.244	ug/L	3.435
Cu	65	2383.060	289.675	1.263	ug/L	1.064
Zn r	66	1655.195	537.024	1.172	ug/L	8.970
Zn	67	10925.870	1621.192	47.897	ug/L	6.530
Zn	68	26451.036	547.025	36.908	ug/L	5.590
> Ge	72	128527.033	122013.611		ug/L	
As r	75	4877.054	223.994	3.844	ug/L	4.602
As u	75	10093.388	4344.270	4.710	ug/L	7.161
Se r	82	23.227	7.818	0.120	ug/L	155.581
Se	77	1662.059	1256.524	3.550	ug/L	38.621
Sr	88	9411809.992	250.673	623.051	ug/L	4.170
Ag r	107	55.334	70.668	-0.004	ug/L	15.054
Ag	109	41.667	62.668	-0.005	ug/L	30.155
Cd r	111	237.050	294.635	-0.059	ug/L	24.454
Cd	106	-3586.916	-2719.513	-4.370	ug/L	19.185
Cd	108	-3747.387	-2883.440	-5.688	ug/L	17.293
Cd	114	47.045	236.018	-0.064	ug/L	2.117
Cd u	111	26.000	99.335	-0.056	ug/L	7.270
> In	115	238602.469	216166.642		ug/L	
Sb r	123	99.100	58.080	0.010	ug/L	28.615
Sb	121	101.668	76.668	0.004	ug/L	9.968

Report Date/Time: Wednesday, March 14, 2012 13:09:14

Page 1

Sample ID: BC21301-DUP1

	<b>Sn</b>	118	309.009	148.670	<b>0.038</b>	ug/L	15.109
	<b>Sn r</b>	120	431.016	219.339	<b>0.037</b>	ug/L	9.299
	<b>Ba r</b>	137	1529552.489	50.001	<b>692.165</b>	ug/L	4.415
	<b>Ba</b>	135	951892.561	25.000	<b>740.693</b>	ug/L	5.321
>	<b>Tb</b>	159	248702.045	244819.515		ug/L	
	<b>Tl r</b>	205	789.382	839.721	<b>-0.006</b>	ug/L	77.794
	<b>Tl</b>	203	315.676	360.345	<b>-0.012</b>	ug/L	93.264
	<b>U</b>	238	91.001	24.334	<b>0.004</b>	ug/L	23.000
	<b>Pb</b>	208	3360.325	6009.054	<b>-0.208</b>	ug/L	3.487
	<b>Kr</b>	83	280.675	251.007		ug/L	
	<b>Cl</b>	35	34934234.828	28732582.996		mg/L	
	<b>C</b>	12	509071.177	386459.208		mg/L	
	<b>Y</b>	89	260328.073	239993.678		ug/L	
>	<b>Br</b>	79	16659.539	1790.227	<b>60.372</b>	ug/L	2.439
	<b>Br</b>	81	27903.135	12370.400	<b>62.235</b>	ug/L	2.100
>	<b>Ge-1</b>	72	128527.033	122013.611		ug/L	
	<b>Ru</b>	99	3.000	2.333		ug/L	
	<b>Pd</b>	105	3179.356	2440.412		ug/L	
	<b>Ho</b>	165	235013.045	225360.332		ug/L	
	<b>Th</b>	232	227.339	49.667	<b>0.013</b>	ug/L	18.620
>	<b>Mo</b>	95	459.018	128.336	<b>0.115</b>	ug/L	6.665
	<b>Mo</b>	97	310.009	76.334	<b>0.131</b>	ug/L	8.347
	<b>Mo r</b>	98	727.489	184.560	<b>0.117</b>	ug/L	9.381
	<b>Rh</b>	103	202.671	13.333		ug/L	
>	<b>In-1</b>	115	238602.469	216166.642		ug/L	
	<b>Tl</b>	47	886.393	308.676		ug/L	
	<b>Li</b>	7	39291.860	24149.430		mg/L	

**QC Out Of Limits (only failed QC will appear below)**

Measurement Type	Mass	Out of Limits Message
Ba r 137 Upper, S, EEE	Ba r 137	Sample greater than CLM3

**ELAN 6100 Quantitative Analysis - Summary Report**

User Name: R.COSTAS User

**Sample ID: 1203001-02**

Sample Description:

Autosampler Position: 21

Sample Date/Time: Wednesday, March 14, 2012 13:10:58

Dataset File: C:\Elandata\Dataset\EL120216\1203001-02.096

Optimization File: C:\Elandata\Optimize\epa.dac

Method File: C:\Elandata\Method\EPAL2008.MTH + B,Sr,Sn,U,Br - 1 CAL STD DIMOCK.mth

Calibration File: C:\Elandata\System\EL120314.cal

Report Title: QUANTITATIVE ANALYSIS REPORT

analysis 200.8 or equivalent

**SITE: DIMOCK WO1202004 3001 QC 3-14-12**

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Sample Unit	Conc. RSD
Be r	9	1.667	1.333	0.003	ug/L	165.472
> Li u	6	246522.705	334987.888		ug/L	
L Li	6	243280.998	333029.370		ug/L	
> Be	9	1.667	1.333	0.001	ug/L	754.321
> B	11	8416.033	157.337	20.993	ug/L	5.578
> Al	27	8014.266	1977.608	1.185	ug/L	9.823
> Sc	45	502840.361	443380.651		ug/L	
V r	51	4650.102	2664.161	0.182	ug/L	68.664
V u	51	133687.578	86078.430	3.868	ug/L	4.877
Cr r	52	10671.504	9512.307	-0.016	ug/L	280.057
Cr	53	43577.860	28695.823	11.825	ug/L	7.937
Mn	55	907861.352	2161.992	86.736	ug/L	4.779
Co	59	212.338	47.001	0.022	ug/L	10.192
Ni r	60	1056.083	461.019	0.338	ug/L	11.445
Ni	62	170.004	171.004	-0.104	ug/L	21.841
Cu r	63	4664.462	603.697	1.211	ug/L	4.112
Cu	65	2330.043	289.675	1.256	ug/L	1.803
Zn r	66	1565.508	537.024	1.043	ug/L	5.529
Zn	67	10825.054	1621.192	46.267	ug/L	2.017
Zn	68	26496.548	547.025	36.224	ug/L	4.271
> Ge	72	131034.446	122013.611		ug/L	
As r	75	4813.556	223.994	3.716	ug/L	8.340
As u	75	10097.395	4344.270	4.547	ug/L	7.247
Se r	82	22.897	7.818	0.115	ug/L	96.490
Se	77	1613.716	1256.524	2.717	ug/L	30.513
Sr	88	9300892.158	250.673	603.683	ug/L	4.857
Ag r	107	68.334	70.668	-0.001	ug/L	172.151
Ag	109	43.667	62.668	-0.004	ug/L	52.401
Cd r	111	227.628	294.635	-0.062	ug/L	12.949
Cd	106	-3669.634	-2719.513	-5.664	ug/L	12.597
Cd	108	-3815.896	-2883.440	-7.324	ug/L	11.591
Cd	114	47.078	236.018	-0.064	ug/L	0.918
Cd u	111	25.334	99.335	-0.056	ug/L	5.361
> In	115	232826.451	216166.642		ug/L	
Sb r	123	97.978	58.080	0.010	ug/L	9.951
Sb	121	104.002	76.668	0.005	ug/L	33.212

Report Date/Time: Wednesday, March 14, 2012 13:14:21

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Sample ID: 1203001-02

	Sn	118	295.342	148.670	<b>0.035</b>	ug/L	30.207
	Sn r	120	436.350	219.339	<b>0.038</b>	ug/L	17.187
	Ba r	137	1519588.724	50.001	<b>685.791</b>	ug/L	4.098
	Ba	135	926208.296	25.000	<b>718.768</b>	ug/L	3.622
>	Tb	159	249502.244	244819.515		ug/L	
	Tl r	205	646.034	839.721	<b>-0.021</b>	ug/L	6.048
	Tl	203	265.007	360.345	<b>-0.024</b>	ug/L	17.313
	U	238	64.334	24.334	<b>0.003</b>	ug/L	12.007
	Pb	208	3328.313	6009.054	<b>-0.211</b>	ug/L	2.762
	Kr	83	280.341	251.007		ug/L	
	Cl	35	34508067.258	28732582.996		mg/L	
	C	12	512005.683	386459.208		mg/L	
	Y	89	255685.130	239993.678		ug/L	
>	Br	79	16177.490	1790.227	<b>57.173</b>	ug/L	3.232
	Br	81	27366.552	12370.400	<b>57.804</b>	ug/L	5.128
>	Ge-1	72	131034.446	122013.611		ug/L	
	Ru	99	2.667	2.333		ug/L	
	Pd	105	3236.047	2440.412		ug/L	
	Ho	165	241477.535	225360.332		ug/L	
	Th	232	195.338	49.667	<b>0.011</b>	ug/L	12.959
>	Mo	95	452.685	128.336	<b>0.116</b>	ug/L	3.066
	Mo	97	267.674	76.334	<b>0.110</b>	ug/L	10.631
	Mo r	98	724.822	184.560	<b>0.121</b>	ug/L	7.105
	Rh	103	208.005	13.333		ug/L	
>	In-1	115	232826.451	216166.642		ug/L	
	Tl	47	858.390	308.676		ug/L	
	Li	7	39971.718	24149.430		mg/L	

**QC Out Of Limits (only failed QC will appear below)**

Measurement Type	Mass	Out of Limits Message
Ba r 137 Upper, S, EEE	Ba r 137	Sample greater than CLM3

**ELAN 6100 Quantitative Analysis - Summary Report**

User Name: R.COSTAS User

**Sample ID: 1203001-03**

Sample Description:

Autosampler Position: 22

Sample Date/Time: Wednesday, March 14, 2012 13:16:05

Dataset File: C:\Elandata\Dataset\EL120216\1203001-03.097

Optimization File: C:\Elandata\Optimize\epa.dac

Method File: C:\Elandata\Method\EPA\2008.MTH + B,Sr,Sn,U,Br - 1 CAL STD DIMOCK.mth

Calibration File: C:\Elandata\System\EL120314.cal

Report Title: QUANTITATIVE ANALYSIS REPORT

analysis 200.8 or equivalent

**SITE: DIMOCK WO1202004**

02 3.14.12

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Sample Unit	Conc. RSD
Be r	9	1.333	1.333	0.001	ug/L	407.123
> Li u	6	241900.438	334987.888		ug/L	
L Li	6	238770.495	333029.370		ug/L	
> Be	9	1.333	1.333	-0.001	ug/L	764.914
B	11	7870.105	157.337	19.361	ug/L	3.276
Al	27	8713.695	1977.608	1.306	ug/L	6.848
> Sc	45	509184.942	443380.651		ug/L	
V r	51	4357.358	2664.161	0.145	ug/L	233.389
Vu	51	127203.401	86078.430	3.001	ug/L	8.840
Cr r	52	10475.571	9512.307	-0.063	ug/L	81.029
Cr	53	42044.385	28695.823	9.609	ug/L	9.473
Mn	55	857009.161	2161.992	80.845	ug/L	0.347
Co	59	204.338	47.001	0.020	ug/L	5.958
Ni r	60	1003.409	461.019	0.297	ug/L	2.110
Ni	62	161.337	171.004	-0.150	ug/L	24.623
Cu r	63	4158.499	603.697	1.041	ug/L	1.996
Cu	65	2103.309	289.675	1.097	ug/L	1.524
Zn r	66	1497.494	537.024	0.972	ug/L	6.890
Zn	67	10245.923	1621.192	43.336	ug/L	1.482
Zn	68	24417.301	547.025	33.327	ug/L	2.367
> Ge	72	130975.787	122013.611		ug/L	
As r	75	4634.633	223.994	3.567	ug/L	7.481
As u	75	9380.811	4344.270	3.950	ug/L	2.992
Se r	82	9.035	7.818	0.007	ug/L	4115.241
Se	77	1481.179	1256.524	1.358	ug/L	35.399
Sr	88	8790441.353	250.673	570.835	ug/L	1.495
Ag r	107	47.667	70.668	-0.005	ug/L	7.031
Ag	109	40.334	62.668	-0.005	ug/L	35.800
Cd r	111	218.176	294.635	-0.068	ug/L	23.217
Cd	106	-3518.534	-2719.513	-4.568	ug/L	25.766
Cd	108	-3663.183	-2883.440	-5.833	ug/L	29.433
Cd	114	47.599	236.018	-0.063	ug/L	1.037
Cd u	111	20.667	99.335	-0.059	ug/L	10.093
> In	115	232423.795	216166.642		ug/L	
Sb r	123	96.814	58.080	0.010	ug/L	6.773
Sb	121	83.668	76.668	0.000	ug/L	825.950

Report Date/Time: Wednesday, March 14, 2012 13:19:27

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Sample ID: 1203001-03

	<b>Sn</b>	118	288.342	148.670	<b>0.033</b>	ug/L	5.769
	<b>Sn r</b>	120	398.348	219.339	<b>0.031</b>	ug/L	13.987
	<b>Ba r</b>	137	1487844.001	50.001	<b>671.340</b>	ug/L	2.265
	<b>Ba</b>	135	904510.120	25.000	<b>701.739</b>	ug/L	1.506
>	<b>Tb</b>	159	249509.436	244819.515		ug/L	
	<b>Tl r</b>	205	558.026	839.721	<b>-0.030</b>	ug/L	15.678
	<b>Tl</b>	203	230.339	360.345	<b>-0.032</b>	ug/L	8.535
	<b>U</b>	238	74.668	24.334	<b>0.003</b>	ug/L	22.522
>	<b>Pb</b>	208	3198.624	6009.054	<b>-0.221</b>	ug/L	4.168
	<b>Kr</b>	83	302.676	251.007		ug/L	
	<b>Cl</b>	35	33031483.489	28732582.996		mg/L	
	<b>C</b>	12	507573.876	386459.208		mg/L	
	<b>Y</b>	89	258208.810	239993.678		ug/L	
>	<b>Br</b>	79	16791.146	1790.227	<b>59.666</b>	ug/L	3.795
	<b>Br</b>	81	28192.551	12370.400	<b>61.287</b>	ug/L	8.965
>	<b>Ge-1</b>	72	130975.787	122013.611		ug/L	
	<b>Ru</b>	99	2.333	2.333		ug/L	
	<b>Pd</b>	105	3106.325	2440.412		ug/L	
	<b>Ho</b>	165	237687.167	225360.332		ug/L	
	<b>Th</b>	232	169.337	49.667	<b>0.009</b>	ug/L	3.860
>	<b>Mo</b>	95	413.349	128.336	<b>0.102</b>	ug/L	10.179
	<b>Mo</b>	97	268.341	76.334	<b>0.111</b>	ug/L	16.053
	<b>Mo r</b>	98	676.373	184.560	<b>0.110</b>	ug/L	6.530
	<b>Rh</b>	103	188.004	13.333		ug/L	
>	<b>In-1</b>	115	232423.795	216166.642		ug/L	
	<b>Ti</b>	47	810.718	308.676		ug/L	
	<b>Li</b>	7	38593.628	24149.430		mg/L	

**QC Out Of Limits (only failed QC will appear below)**

Measurement Type	Mass	Out of Limits Message
Ba r 137 Upper, S, EEE	Ba r 137	Sample greater than CLM3

**ELAN 6100 Quantitative Analysis - Summary Report**

User Name: R.COSTAS User

**Sample ID: 1203001-04**

Sample Description:

Autosampler Position: 23

Sample Date/Time: Wednesday, March 14, 2012 13:21:12

Dataset File: C:\Elandata\Dataset\EL120216\1203001-04.098

Optimization File: C:\Elandata\Optimize\epa.dac

Method File: C:\Elandata\Method\EPA2008.MTH + B,Sr,Sn,U,Br - 1 CAL STD DIMOCK.mth

Calibration File: C:\Elandata\System\EL120314.cal

Report Title: QUANTITATIVE ANALYSIS REPORT

analysis 200.8 or equivalent

**SITE: DIMOCK WO1202004 3001 06/3/14-12**

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Sample Unit	Conc. RSD
Be r	9	0.667	1.333	-0.001	ug/L	184.221
> Li u	6	244841.194	334987.888		ug/L	
> Li	6	242132.995	333029.370		ug/L	
> Be	9	0.667	1.333	-0.003	ug/L	70.030
> B	11	5641.126	157.337	14.038	ug/L	2.965
> Al	27	9284.441	1977.608	1.462	ug/L	20.278
> Sc	45	498961.909	443380.651		ug/L	
> V r	51	6206.674	2664.161	0.362	ug/L	41.017
> Vu	51	139777.938	86078.430	4.641	ug/L	16.408
> Cr r	52	11135.166	9512.307	0.062	ug/L	66.205
> Cr	53	45569.942	28695.823	14.342	ug/L	20.482
> Mn	55	378090.971	2161.992	36.270	ug/L	4.974
> Co	59	169.004	47.001	0.016	ug/L	11.216
> Ni r	60	708.706	461.019	0.121	ug/L	23.715
> Ni	62	149.670	171.004	-0.187	ug/L	31.174
> Cu r	63	3832.993	603.697	0.967	ug/L	1.841
> Cu	65	1822.568	289.675	0.946	ug/L	4.201
> Zn r	66	719.041	537.024	0.141	ug/L	39.667
> Zn	67	5648.463	1621.192	19.536	ug/L	1.055
> Zn	68	8649.615	547.025	11.124	ug/L	3.664
> Ge	72	132706.506	122013.611		ug/L	
> As r	75	993.065	223.994	0.604	ug/L	38.301
> As u	75	7056.645	4344.270	1.924	ug/L	10.212
> Se r	82	-22.648	7.818	-0.242	ug/L	44.938
> Se	77	1853.600	1256.524	4.914	ug/L	25.284
> Sr	88	3847389.785	250.673	246.649	ug/L	3.775
> Ag r	107	47.334	70.668	-0.004	ug/L	31.941
> Ag	109	30.667	62.668	-0.006	ug/L	12.951
> Cd r	111	206.556	294.635	-0.068	ug/L	16.136
> Cd	106	-3257.944	-2719.513	-3.956	ug/L	31.057
> Cd	108	-3390.509	-2883.440	-4.959	ug/L	28.959
> Cd	114	45.769	236.018	-0.063	ug/L	3.401
> Cd u	111	22.667	99.335	-0.057	ug/L	7.744
> In	115	220134.547	216166.642		ug/L	
> Sb r	123	63.238	58.080	0.001	ug/L	148.809
> Sb	121	71.668	76.668	-0.001	ug/L	218.154

Report Date/Time: Wednesday, March 14, 2012 13:24:35

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Sample ID: 1203001-04

	Sn	118	145.336	148.670	-0.001	ug/L	11.756
	Sn r	120	192.671	219.339	-0.005	ug/L	42.745
	Ba r	137	489476.276	50.001	223.387	ug/L	3.076
	Ba	135	289221.363	25.000	226.995	ug/L	4.851
>	Tb	159	246688.843	244819.515		ug/L	
	Tl r	205	500.021	839.721	-0.035	ug/L	8.850
	Tl	203	209.338	360.345	-0.036	ug/L	11.143
	U	238	6103.483	24.334	0.403	ug/L	4.565
	Pb	208	4594.918	6009.054	-0.112	ug/L	16.368
	Kr	83	304.342	251.007		ug/L	
	Cl	35	32438819.537	28732582.996		mg/L	
	C	12	510828.514	386459.208		mg/L	
	Y	89	239997.249	239993.678		ug/L	
	Br	79	3308.752	1790.227	5.414	ug/L	34.792
	Br	81	14319.464	12370.400	3.523	ug/L	57.131
L>	Ge-1	72	132706.506	122013.611		ug/L	
	Ru	99	1.667	2.333		ug/L	
	Pd	105	2868.897	2440.412		ug/L	
	Ho	165	235933.746	225360.332		ug/L	
	Th	232	140.669	49.667	0.007	ug/L	11.225
	Mo	95	575.694	128.336	0.174	ug/L	6.780
	Mo	97	374.013	76.334	0.186	ug/L	4.557
	Mo r	98	955.514	184.560	0.186	ug/L	3.157
	Rh	103	82.001	13.333		ug/L	
L>	In-1	115	220134.547	216166.642		ug/L	
	Ti	47	724.708	308.676		ug/L	
	Li	7	33393.328	24149.430		mg/L	

**QC Out Of Limits (only failed QC will appear below)**

Measurement Type	Mass	Out of Limits Message
Ba r 137 Upper, S, EEE	Ba r 137	Sample greater than CLM3

**ELAN 6100 Quantitative Analysis - Summary Report**

User Name: R.COSTAS User

**Sample ID: 1203001-06**

Sample Description:

Autosampler Position: 24

Sample Date/Time: Wednesday, March 14, 2012 13:26:15

Dataset File: C:\Elandata\Dataset\EL120216\1203001-06.099

Optimization File: C:\Elandata\Optimize\epa.dac

Method File: C:\Elandata\Method\EPA\2008.MTH + B,Sr,Sn,U,Br - 1 CAL STD DIMOCK.mth

Calibration File: C:\Elandata\System\EL120314.cal

Report Title: QUANTITATIVE ANALYSIS REPORT

analysis 200.8 or equivalent

**SITE: DIMOCK WO1202004**

EC 3/14/12

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Sample Unit	Conc. RSD
Be r	9	0.667	1.333	-0.001	ug/L	314.448
> Li u	6	255377.127	334987.888		ug/L	
L	Li	6	253611.906	333029.370	ug/L	
> Be	9	0.667	1.333	-0.003	ug/L	135.670
> B	11	2844.888	157.337	6.577	ug/L	7.638
> Al	27	4360.279	1977.608	0.407	ug/L	8.851
> Sc	45	519250.045	443380.651		ug/L	
> V r	51	4644.163	2664.161	0.159	ug/L	233.110
> Vu	51	159349.153	86078.430	6.078	ug/L	0.335
> Cr r	52	12748.350	9512.307	0.222	ug/L	15.480
> Cr	53	53129.066	28695.823	20.260	ug/L	6.113
> Mn	55	1465.821	2161.992	-0.099	ug/L	1.323
> Co	59	61.001	47.001	0.001	ug/L	178.302
> Ni r	60	122.669	461.019	-0.256	ug/L	3.620
> Ni	62	130.669	171.004	-0.292	ug/L	11.398
> Cu r	63	459.352	603.697	-0.073	ug/L	6.083
> Cu	65	231.339	289.675	-0.065	ug/L	18.553
> Zn r	66	441.684	537.024	-0.168	ug/L	14.015
> Zn	67	3476.822	1621.192	7.865	ug/L	9.694
> Zn	68	589.695	547.025	-0.042	ug/L	178.730
> Ge	72	138645.036	122013.611		ug/L	
> As r	75	102.336	223.994	-0.118	ug/L	164.645
> As u	75	7406.307	4344.270	1.954	ug/L	11.258
> Se r	82	-2.823	7.818	-0.087	ug/L	140.440
> Se	77	2298.544	1256.524	8.440	ug/L	16.865
> Sr	88	8661.628	250.673	0.514	ug/L	1.942
> Ag r	107	44.001	70.668	-0.005	ug/L	26.095
> Ag	109	25.334	62.668	-0.007	ug/L	13.494
> Cd r	111	238.382	294.635	-0.061	ug/L	18.032
> Cd	106	-3042.661	-2719.513	0.047	ug/L	2435.056
> Cd	108	-3220.675	-2883.440	0.118	ug/L	1386.408
> Cd	114	37.672	236.018	-0.067	ug/L	3.026
> Cd u	111	22.334	99.335	-0.059	ug/L	2.281
> In	115	242386.530	216166.642		ug/L	
> Sb r	123	50.958	58.080	-0.004	ug/L	61.522
> Sb	121	71.668	76.668	-0.003	ug/L	27.583

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Sample ID: 1203001-06

	Sn	118	745.377	148.670	0.130	ug/L	5.823
	Sn r	120	1040.081	219.339	0.131	ug/L	6.891
	Ba r	137	133.336	50.001	0.033	ug/L	7.538
	Ba	135	76.001	25.000	0.035	ug/L	11.870
>	Tb	159	268447.201	244819.515		ug/L	
	Tl r	205	535.357	839.721	-0.036	ug/L	6.514
	Tl	203	204.671	360.345	-0.041	ug/L	1.173
	U	238	15.000	24.334	-0.001	ug/L	24.057
	Pb	208	739.354	6009.054	-0.411	ug/L	0.168
	Kr	83	286.342	251.007		ug/L	
	Cl	35	33934579.720	28732582.996		mg/L	
	C	12	513746.244	386459.208		mg/L	
	Y	89	263146.488	239993.678		ug/L	
>	Br	79	1893.585	1790.227	-0.532	ug/L	42.996
	Br	81	13582.784	12370.400	-1.835	ug/L	41.317
>	Ge-1	72	138645.036	122013.611		ug/L	
	Ru	99	1.667	2.333		ug/L	
	Pd	105	2720.509	2440.412		ug/L	
	Ho	165	255082.365	225360.332		ug/L	
>	Th	232	139.003	49.667	0.007	ug/L	19.518
	Mo	95	181.671	128.336	0.014	ug/L	58.293
	Mo	97	111.002	76.334	0.015	ug/L	40.957
	Mo r	98	290.528	184.560	0.018	ug/L	37.079
	Rh	103	7.333	13.333		ug/L	
>	In-1	115	242386.530	216166.642		ug/L	
	Tl	47	420.682	308.676		ug/L	
	Li	7	21765.978	24149.430		mg/L	

**QC Out Of Limits (only failed QC will appear below)**

Measurement Type	Mass	Out of Limits Message
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**ELAN 6100 Quantitative Analysis - Summary Report**

User Name: R.COSTAS User

**Sample ID: 1203001-07**

Sample Description:

Autosampler Position: 25

Sample Date/Time: Wednesday, March 14, 2012 13:31:16

Dataset File: C:\Elandata\Dataset\EL120216\1203001-07.100

Optimization File: C:\Elandata\Optimize\epa.dac

Method File: C:\Elandata\Method\EPA\2008.MTH + B,Sr,Sn,U,Br - 1 CAL STD DIMOCK.mth

Calibration File: C:\Elandata\System\EL120314.cal

Report Title: QUANTITATIVE ANALYSIS REPORT

analysis 200.8 or equivalent

**SITE: DIMOCK WO1202004** *3001* *03/14/12*

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Sample Unit	Conc. RSD
Ber	9	0.667	1.333	-0.001	ug/L	189.182
Liu	6	249514.908	334987.888		ug/L	
Li	6	247653.846	333029.370		ug/L	
Be	9	0.667	1.333	-0.003	ug/L	66.072
B	11	1746.217	157.337	3.918	ug/L	10.976
Al	27	23387.976	1977.608	4.255	ug/L	11.518
Sc	45	511991.864	443380.651		ug/L	
Vr	51	5737.466	2664.161	0.292	ug/L	22.548
Vu	51	180549.368	86078.430	8.546	ug/L	6.790
Cr r	52	13084.917	9512.307	0.293	ug/L	4.913
Cr	53	60052.602	28695.823	28.309	ug/L	8.195
Mn	55	2657.487	2161.992	0.015	ug/L	117.691
Co	59	315.343	47.001	0.035	ug/L	12.537
Ni r	60	1206.774	461.019	0.420	ug/L	20.970
Ni	62	160.003	171.004	-0.160	ug/L	28.814
Curr	63	63158.290	603.697	18.666	ug/L	10.584
Cu	65	30257.918	289.675	18.446	ug/L	12.320
Zn r	66	4818.897	537.024	4.407	ug/L	9.254
Zn	67	4633.108	1621.192	14.425	ug/L	3.191
Zn	68	4768.199	547.025	5.761	ug/L	10.048
Ge	72	132737.131	122013.611		ug/L	
As r	75	-92.102	223.994	-0.269	ug/L	12.208
As u	75	9574.064	4344.270	4.005	ug/L	11.830
Se r	82	1.722	7.818	-0.052	ug/L	134.534
Se	77	2931.972	1256.524	15.839	ug/L	16.775
Sr	88	474324.937	250.673	30.380	ug/L	12.518
Ag r	107	58.001	70.668	-0.003	ug/L	63.737
Ag	109	48.334	62.668	-0.003	ug/L	15.987
Cd r	111	250.741	294.635	-0.046	ug/L	9.358
Cd	106	-3241.220	-2719.513	-2.329	ug/L	27.991
Cd	108	-3395.782	-2883.440	-2.909	ug/L	28.098
Cd	114	118.725	236.018	-0.042	ug/L	5.590
Cdu	111	51.334	99.335	-0.038	ug/L	11.016
In	115	233415.951	216166.642		ug/L	
Sbr	123	89.789	58.080	0.008	ug/L	40.227
Sb	121	98.002	76.668	0.003	ug/L	113.599

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Sample ID: 1203001-07

	Sn	118	147.003	148.670	-0.002	ug/L	66.930
	Sn r	120	179.004	219.339	-0.009	ug/L	34.952
	Ba r	137	66956.651	50.001	29.252	ug/L	11.051
	Ba	135	38776.781	25.000	29.138	ug/L	12.416
>	Tb	159	257515.123	244819.515		ug/L	
	Tl r	205	468.352	839.721	-0.040	ug/L	2.188
	Tl	203	182.337	360.345	-0.045	ug/L	7.241
	U	238	3127.004	24.334	0.197	ug/L	10.613
>	Pb	208	6676.203	6009.054	0.026	ug/L	190.300
	Kr	83	262.007	251.007		ug/L	
	Cl	35	36354417.384	28732582.996		mg/L	
	C	12	514260.199	386459.208		mg/L	
	Y	89	256755.448	239993.678		ug/L	
>	Br	79	3422.132	1790.227	5.839	ug/L	18.625
	Br	81	14601.002	12370.400	4.625	ug/L	39.215
>	Ge-1	72	132737.131	122013.611		ug/L	
	Ru	99	1.000	2.333		ug/L	
	Pd	105	2877.567	2440.412		ug/L	
	Ho	165	243971.594	225360.332		ug/L	
>	Th	232	138.003	49.667	0.007	ug/L	19.836
>	Mo	95	207.005	128.336	0.025	ug/L	9.172
	Mo	97	108.335	76.334	0.015	ug/L	21.206
	Mo r	98	305.825	184.560	0.024	ug/L	10.764
	Rh	103	26.334	13.333		ug/L	
>	In-1	115	233415.951	216166.642		ug/L	
	Ti	47	669.703	308.676		ug/L	
	Li	7	22947.743	24149.430		mg/L	

**QC Out Of Limits (only failed QC will appear below)**

Measurement Type	Mass	Out of Limits Message
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**ELAN 6100 Quantitative Analysis - Summary Report**

User Name: R.COSTAS User

**Sample ID: 1203001-08**

Sample Description:

Autosampler Position: 26

Sample Date/Time: Wednesday, March 14, 2012 13:36:16

Dataset File: C:\Elandata\Dataset\EL120216\1203001-08.101

Optimization File: C:\Elandata\Optimize\epa.dac

Method File: C:\Elandata\Method\EPA2008.MTH + B,Sr,Sn,U,Br - 1 CAL STD DIMOCK.mth

Calibration File: C:\Elandata\System\EL120314.cal

Report Title: QUANTITATIVE ANALYSIS REPORT

analysis 200.8 or equivalent

**SITE: DIMOCK WO1202004 3001**

Re 3.14-12

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Sample Unit	Conc. RSD
Ber	9	2.333	1.333	<b>0.005</b>	ug/L	104.363
> Liu	6	238475.245	334987.888		ug/L	
> Li	6	236644.683	333029.370		ug/L	
> Be	9	2.333	1.333	<b>0.003</b>	ug/L	191.039
> B	11	1773.892	157.337	<b>3.948</b>	ug/L	13.709
> Al	27	22766.072	1977.608	<b>4.094</b>	ug/L	9.810
> Sc	45	515750.636	443380.651		ug/L	
> Vr	51	2647.375	2664.161	<b>-0.050</b>	ug/L	434.199
> Vu	51	189565.172	86078.430	<b>9.341</b>	ug/L	8.923
> Cr r	52	13864.637	9512.307	<b>0.387</b>	ug/L	12.167
> Cr	53	63514.299	28695.823	<b>31.440</b>	ug/L	7.921
> Mn	55	2986.944	2161.992	<b>0.044</b>	ug/L	19.568
> Co	59	361.346	47.001	<b>0.040</b>	ug/L	16.941
> Nir	60	1318.127	461.019	<b>0.483</b>	ug/L	11.524
> Ni	62	173.004	171.004	<b>-0.110</b>	ug/L	11.463
> Cur	63	30970.675	603.697	<b>8.966</b>	ug/L	8.341
> Cu	65	14839.539	289.675	<b>8.863</b>	ug/L	7.667
> Zn r	66	7208.458	537.024	<b>6.762</b>	ug/L	7.518
> Zn	67	5110.749	1621.192	<b>16.371</b>	ug/L	5.299
> Zn	68	6537.519	547.025	<b>8.042</b>	ug/L	8.215
> Ge	72	135154.900	122013.611		ug/L	
> As r	75	123.318	223.994	<b>-0.098</b>	ug/L	86.066
> As u	75	10285.336	4344.270	<b>4.443</b>	ug/L	15.299
> Se r	82	14.351	7.818	<b>0.044</b>	ug/L	145.454
> Se	77	3172.381	1256.524	<b>17.702</b>	ug/L	16.976
> Sr	88	475338.796	250.673	<b>29.901</b>	ug/L	10.394
> Ag r	107	59.001	70.668	<b>-0.003</b>	ug/L	19.577
> Ag	109	48.334	62.668	<b>-0.003</b>	ug/L	33.922
> Cd r	111	275.121	294.635	<b>-0.029</b>	ug/L	46.640
> Cd	106	-3023.220	-2719.513	<b>-0.764</b>	ug/L	93.812
> Cd	108	-3196.499	-2883.440	<b>-1.003</b>	ug/L	79.848
> Cd	114	144.140	236.018	<b>-0.034</b>	ug/L	10.632
> Cd u	111	65.001	99.335	<b>-0.029</b>	ug/L	18.108
> In	115	232295.090	216166.642		ug/L	
> Sb r	123	110.536	58.080	<b>0.014</b>	ug/L	28.849
> Sb	121	145.003	76.668	<b>0.013</b>	ug/L	40.203

Report Date/Time: Wednesday, March 14, 2012 13:39:36

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Sample ID: 1203001-08

	Sn	118	144.003	148.670	-0.004	ug/L	74.463
	Sn r	120	209.005	219.339	-0.004	ug/L	21.570
	Ba r	137	70236.484	50.001	30.047	ug/L	10.512
	Ba	135	39615.493	25.000	29.152	ug/L	8.105
>	Tb	159	262569.200	244819.515		ug/L	
	Tl r	205	490.021	839.721	-0.039	ug/L	2.674
	Tl	203	207.672	360.345	-0.040	ug/L	9.430
	U	238	3328.759	24.334	0.206	ug/L	9.338
	Pb	208	10606.333	6009.054	0.299	ug/L	18.629
	Kr	83	266.341	251.007		ug/L	
	Cl	35	36566711.551	28732582.996		mg/L	
	C	12	507487.979	386459.208		mg/L	
	Y	89	257712.550	239993.678		ug/L	
	Br	79	3548.191	1790.227	6.086	ug/L	19.020
	Br	81	14722.915	12370.400	4.078	ug/L	82.807
>	Ge-1	72	135154.900	122013.611		ug/L	
	Ru	99	1.000	2.333		ug/L	
	Pd	105	2705.170	2440.412		ug/L	
	Ho	165	241650.051	225360.332		ug/L	
	Th	232	113.335	49.667	0.005	ug/L	33.846
	Mo	95	192.004	128.336	0.020	ug/L	36.776
	Mo	97	132.669	76.334	0.030	ug/L	32.958
	Mo r	98	329.233	184.560	0.030	ug/L	12.327
	Rh	103	26.667	13.333		ug/L	
>	In-1	115	232295.090	216166.642		ug/L	
	Ti	47	647.034	308.676		ug/L	
	Li	7	22571.668	24149.430		mg/L	

**QC Out Of Limits (only failed QC will appear below)**

Measurement Type	Mass	Out of Limits Message
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**ELAN 6100 Quantitative Analysis - Summary Report**

User Name: R.COSTAS User

**Sample ID: 1203001-09**

Sample Description:

Autosampler Position: 27

Sample Date/Time: Wednesday, March 14, 2012 13:41:27

Dataset File: C:\Elandata\Dataset\EL120216\1203001-09.102

Optimization File: C:\Elandata\Optimize\epa.dac

Method File: C:\Elandata\Method\EPA\2008.MTH + B,Sr,Sn,U,Br - 1 CAL STD DIMOCK.mth

Calibration File: C:\Elandata\System\EL120314.cal

Report Title: QUANTITATIVE ANALYSIS REPORT

analysis 200.8 or equivalent

**SITE: DIMOCK WO1203001**

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Sample Unit	Conc. RSD
Be r	9	2.333	1.333	0.005	ug/L	47.932
> Li u	6	239876.249	334987.888		ug/L	
L Li	6	238038.288	333029.370		ug/L	
> Be	9	2.333	1.333	0.002	ug/L	77.785
B	11	1627.856	157.337	3.464	ug/L	14.762
Al	27	22652.371	1977.608	3.929	ug/L	12.577
> Sc	45	533598.187	443380.651		ug/L	
V r	51	3091.878	2664.161	-0.011	ug/L	850.179
Vu	51	184635.402	86078.430	8.198	ug/L	8.619
Cr r	52	13497.971	9512.307	0.276	ug/L	29.425
Cr	53	61077.134	28695.823	26.810	ug/L	7.005
Mn	55	2706.171	2161.992	0.010	ug/L	189.580
Co	59	290.008	47.001	0.030	ug/L	8.902
Ni r	60	1229.778	461.019	0.404	ug/L	16.005
Ni	62	161.670	171.004	-0.180	ug/L	30.699
Cu r	63	29260.007	603.697	8.192	ug/L	9.451
Cu	65	13758.784	289.675	7.939	ug/L	7.431
Zn r	66	6830.774	537.024	6.205	ug/L	6.858
Zn	67	4847.910	1621.192	14.492	ug/L	3.994
Zn	68	5980.724	547.025	7.089	ug/L	6.928
> Ge	72	138499.192	122013.611		ug/L	
As r	75	65.606	223.994	-0.145	ug/L	104.591
As u	75	10242.263	4344.270	4.203	ug/L	9.110
Se r	82	11.734	7.818	0.020	ug/L	1018.336
Se	77	3250.072	1256.524	17.684	ug/L	4.435
Sr	88	458879.171	250.673	28.152	ug/L	5.204
Ag r	107	54.001	70.668	-0.004	ug/L	14.252
Ag	109	52.001	62.668	-0.003	ug/L	36.009
Cd r	111	260.997	294.635	-0.038	ug/L	22.474
Cd	106	-3162.866	-2719.513	-1.898	ug/L	25.621
Cd	108	-3325.138	-2883.440	-2.420	ug/L	35.283
Cd	114	108.963	236.018	-0.044	ug/L	4.699
Cd u	111	57.001	99.335	-0.034	ug/L	12.929
> In	115	231845.442	216166.642		ug/L	
Sb r	123	83.202	58.080	0.006	ug/L	22.716
Sb	121	110.669	76.668	0.006	ug/L	66.196

Report Date/Time: Wednesday, March 14, 2012 13:44:47

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Sample ID: 1203001-09

	<b>Sn</b>	118	163.003	148.670	<b>0.000</b>	ug/L	3713.034
	<b>Sn r</b>	120	205.338	219.339	<b>-0.006</b>	ug/L	31.136
	<b>Ba r</b>	137	65139.674	50.001	<b>27.366</b>	ug/L	8.932
	<b>Ba</b>	135	37500.612	25.000	<b>27.101</b>	ug/L	10.628
>	<b>Tb</b>	159	268111.968	244819.515		ug/L	
	<b>Tl r</b>	205	459.018	839.721	<b>-0.043</b>	ug/L	4.682
	<b>Tl</b>	203	192.671	360.345	<b>-0.044</b>	ug/L	3.443
	<b>U</b>	238	3062.975	24.334	<b>0.186</b>	ug/L	7.745
	<b>Pb</b>	208	9739.494	6009.054	<b>0.223</b>	ug/L	24.950
	<b>Kr</b>	83	222.339	251.007		ug/L	
	<b>Cl</b>	35	34119801.305	28732582.996		mg/L	
	<b>C</b>	12	499536.856	386459.208		mg/L	
	<b>Y</b>	89	264505.280	239993.678		ug/L	
>	<b>Br</b>	79	3249.387	1790.227	<b>4.614</b>	ug/L	12.496
	<b>Br</b>	81	14850.805	12370.400	<b>3.149</b>	ug/L	40.635
>	<b>Ge-1</b>	72	138499.192	122013.611		ug/L	
	<b>Ru</b>	99	2.667	2.333		ug/L	
	<b>Pd</b>	105	2816.544	2440.412		ug/L	
	<b>Ho</b>	165	253360.486	225360.332		ug/L	
	<b>Th</b>	232	121.336	49.667	<b>0.005</b>	ug/L	21.451
>	<b>Mo</b>	95	201.005	128.336	<b>0.024</b>	ug/L	25.909
	<b>Mo</b>	97	124.002	76.334	<b>0.025</b>	ug/L	14.336
	<b>Mo r</b>	98	303.898	184.560	<b>0.024</b>	ug/L	19.392
	<b>Rh</b>	103	26.667	13.333		ug/L	
>	<b>In-1</b>	115	231845.442	216166.642		ug/L	
	<b>Ti</b>	47	650.368	308.676		ug/L	
	<b>Li</b>	7	22662.898	24149.430		mg/L	

**QC Out Of Limits (only failed QC will appear below)**

Measurement Type	Mass	Out of Limits Message
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**ELAN 6100 Quantitative Analysis - Summary Report**

User Name: R.COSTAS User

**Sample ID: BC21301-MS1**

Sample Description: 21203 RL 31412

Autosampler Position: 28

Sample Date/Time: Wednesday, March 14, 2012 13:46:29

Dataset File: C:\Elandata\Dataset\EL120216\BC21301-MS1.103

Optimization File: C:\Elandata\Optimize\epa.dac

Method File: C:\Elandata\Method\EPA\2008.MTH + B,Sr,Sn,U,Br - 1 CAL STD DIMOCK.mth

Calibration File: C:\Elandata\System\EL120314.cal

Report Title: QUANTITATIVE ANALYSIS REPORT

analysis 200.8 or equivalent

**SITE: DIMOCK WO1203001**

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Sample Unit	Conc. RSD
Be r	9	571.694	1.333	<b>2.198</b>	ug/L	12.125
> Li u	6	237550.028	334987.888		ug/L	
L Li	6	234181.966	333029.370		ug/L	
T Be	9	571.694	1.333	<b>1.952</b>	ug/L	15.306
I B	11	9954.985	157.337	<b>23.650</b>	ug/L	13.838
A Al	27	448316.151	1977.608	<b>87.007</b>	ug/L	8.540
> Sc	45	528201.708	443380.651		ug/L	
V r	51	194277.644	2664.161	<b>20.303</b>	ug/L	12.993
V u	51	363616.569	86078.430	<b>26.579</b>	ug/L	14.684
Cr r	52	162945.413	9512.307	<b>20.445</b>	ug/L	13.143
Cr	53	74831.916	28695.823	<b>41.321</b>	ug/L	15.645
Mn	55	223310.174	2161.992	<b>20.087</b>	ug/L	12.821
Co	59	155957.504	47.001	<b>20.063</b>	ug/L	12.001
Ni r	60	33056.032	461.019	<b>19.580</b>	ug/L	10.911
Ni	62	5075.408	171.004	<b>20.073</b>	ug/L	10.169
Cu r	63	97421.899	603.697	<b>27.947</b>	ug/L	12.641
Cu	65	46481.641	289.675	<b>27.513</b>	ug/L	10.166
Zn r	66	25716.535	537.024	<b>25.757</b>	ug/L	13.762
Zn	67	9105.507	1621.192	<b>36.215</b>	ug/L	14.009
Zn	68	21862.241	547.025	<b>28.910</b>	ug/L	15.307
> Ge	72	134989.133	122013.611		ug/L	
As r	75	24605.702	223.994	<b>19.235</b>	ug/L	13.990
As u	75	32673.019	4344.270	<b>22.690</b>	ug/L	17.850
Se r	82	2526.910	7.818	<b>19.249</b>	ug/L	13.007
Se	77	4636.139	1256.524	<b>32.400</b>	ug/L	24.168
Sr	88	744484.765	250.673	<b>46.978</b>	ug/L	14.442
Ag r	107	13433.053	70.668	<b>2.173</b>	ug/L	15.146
Ag	109	12748.159	62.668	<b>2.176</b>	ug/L	13.632
Cd r	111	3068.292	294.635	<b>1.901</b>	ug/L	13.770
Cd	106	-2973.066	-2719.513	<b>-0.434</b>	ug/L	417.322
Cd	108	-3138.763	-2883.440	<b>-0.473</b>	ug/L	447.582
Cd	114	6693.254	236.018	<b>1.980</b>	ug/L	11.845
Cd u	111	2941.598	99.335	<b>1.950</b>	ug/L	13.072
> In	115	232172.369	216166.642		ug/L	
Sb r	123	75393.781	58.080	<b>21.342</b>	ug/L	11.651
Sb	121	99595.154	76.668	<b>21.234</b>	ug/L	12.274

Report Date/Time: Wednesday, March 14, 2012 13:49:49

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Sample ID: BC21301-MS1

	Sn	118	91590.323	148.670	<b>21.209</b>	ug/L	13.187
	Sn r	120	121724.049	219.339	<b>20.670</b>	ug/L	12.377
	Ba r	137	239435.994	50.001	<b>104.315</b>	ug/L	10.981
	Ba	135	139214.758	25.000	<b>104.284</b>	ug/L	11.735
>	Tb	159	258143.702	244819.515		ug/L	
	Tl r	205	202345.529	839.721	<b>19.382</b>	ug/L	13.230
	Tl	203	85130.693	360.345	<b>19.187</b>	ug/L	13.337
	U	238	329328.077	24.334	<b>20.853</b>	ug/L	12.383
>	Pb	208	284236.111	6009.054	<b>20.312</b>	ug/L	10.794
	Kr	83	183.337	251.007		ug/L	
	Cl	35	33474571.422	28732582.996		mg/L	
	C	12	491512.533	386459.208		mg/L	
	Y	89	255127.687	239993.678		ug/L	
>	Br	79	5301.557	1790.227	<b>12.957</b>	ug/L	18.569
	Br	81	16482.828	12370.400	<b>11.196</b>	ug/L	37.063
>	Ge-1	72	134989.133	122013.611		ug/L	
	Ru	99	9.000	2.333		ug/L	
	Pd	105	2882.903	2440.412		ug/L	
	Ho	165	247215.528	225360.332		ug/L	
	Th	232	195.671	49.667	<b>0.011</b>	ug/L	21.620
>	Mo	95	55294.529	128.336	<b>20.460</b>	ug/L	14.976
	Mo	97	34925.191	76.334	<b>20.741</b>	ug/L	13.580
	Mo r	98	88864.016	184.560	<b>20.372</b>	ug/L	12.649
	Rh	103	49.334	13.333		ug/L	
>	In-1	115	232172.369	216166.642		ug/L	
	Ti	47	16099.309	308.676		ug/L	
	Li	7	41529.745	24149.430		mg/L	

**QC Out Of Limits (only failed QC will appear below)**

Measurement Type	Mass	Out of Limits Message
Ba r 137 Upper, S, EEE	Ba r 137	Sample greater than CLM3

**ELAN 6100 Quantitative Analysis - Summary Report**

User Name: R.COSTAS User

**Sample ID: 1203001-11**

Sample Description:

Autosampler Position: 29

Sample Date/Time: Wednesday, March 14, 2012 13:51:31

Dataset File: C:\Elandata\Dataset\EL120216\1203001-11.104

Optimization File: C:\Elandata\Optimize\epa.dac

Method File: C:\Elandata\Method\EPA\2008.MTH + B,Sr,Sn,U,Br - 1 CAL STD DIMOCK.mth

Calibration File: C:\Elandata\System\EL120314.cal

Report Title: QUANTITATIVE ANALYSIS REPORT

analysis 200.8 or equivalent

**SITE: DIMOCK WO1203001**

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Sample Unit	Conc. RSD
Be r	9	1.333	1.333	0.001	ug/L	398.903
Li u	6	236593.867	334987.888		ug/L	
Li	6	234822.871	333029.370		ug/L	
Be	9	1.333	1.333	-0.001	ug/L	517.843
B	11	2874.233	157.337	6.542	ug/L	3.045
Al	27	4806.217	1977.608	0.482	ug/L	3.022
Sc	45	526657.648	443380.651		ug/L	
V r	51	5930.882	2664.161	0.296	ug/L	75.897
V u	51	179247.744	86078.430	7.897	ug/L	8.616
Cr r	52	14402.618	9512.307	0.423	ug/L	23.945
Cr	53	59124.297	28695.823	25.665	ug/L	11.235
Mn	55	1410.477	2161.992	-0.106	ug/L	3.209
Co	59	59.001	47.001	0.000	ug/L	76.210
Ni r	60	182.671	461.019	-0.221	ug/L	2.641
Ni	62	160.337	171.004	-0.178	ug/L	42.008
Cu r	63	534.357	603.697	-0.053	ug/L	16.070
Cu	65	234.339	289.675	-0.066	ug/L	13.743
Zn r	66	537.024	537.024	-0.071	ug/L	12.455
Zn	67	3585.205	1621.192	8.451	ug/L	8.463
Zn	68	658.035	547.025	0.052	ug/L	161.690
Ge	72	138196.733	122013.611		ug/L	
As r	75	-98.274	223.994	-0.269	ug/L	50.110
As u	75	8725.370	4344.270	3.018	ug/L	4.088
Se r	82	-5.125	7.818	-0.107	ug/L	208.446
Se	77	2735.594	1256.524	12.752	ug/L	5.166
Sr	88	9438.886	250.673	0.563	ug/L	1.381
Ag r	107	46.334	70.668	-0.005	ug/L	12.356
Ag	109	38.667	62.668	-0.005	ug/L	12.567
Cd r	111	235.856	294.635	-0.063	ug/L	3.343
Cd	106	-3179.537	-2719.513	-0.821	ug/L	52.026
Cd	108	-3355.056	-2883.440	-1.015	ug/L	55.846
Cd	114	42.635	236.018	-0.065	ug/L	3.941
Cd u	111	19.000	99.335	-0.061	ug/L	1.987
In	115	243805.861	216166.642		ug/L	
Sb r	123	58.413	58.080	-0.002	ug/L	26.035
Sb	121	80.335	76.668	-0.001	ug/L	75.608

Report Date/Time: Wednesday, March 14, 2012 13:54:52

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Sample ID: 1203001-11

	Sn	118	200.005	148.670	0.007	ug/L	84.123
	Sn r	120	302.342	219.339	0.008	ug/L	81.774
	Ba r	137	166.670	50.001	0.044	ug/L	18.137
	Ba	135	84.335	25.000	0.039	ug/L	11.084
>	Tb	159	278450.113	244819.515		ug/L	
	Tl r	205	1248.119	839.721	0.026	ug/L	121.973
	Tl	203	506.022	360.345	0.020	ug/L	125.400
	U	238	61.668	24.334	0.002	ug/L	60.983
L	Pb	208	788.691	6009.054	-0.410	ug/L	0.454
	Kr	83	167.670	251.007		ug/L	
	Cl	35	33451559.727	28732582.996		mg/L	
	C	12	490312.266	386459.208		mg/L	
	Y	89	267841.094	239993.678		ug/L	
>	Br	79	1568.176	1790.227	-1.748	ug/L	4.821
	Br	81	12501.282	12370.400	-5.871	ug/L	24.259
L>	Ge-1	72	138196.733	122013.611		ug/L	
	Ru	99	1.000	2.333		ug/L	
	Pd	105	2835.884	2440.412		ug/L	
	Ho	165	263101.293	225360.332		ug/L	
	Th	232	91.001	49.667	0.003	ug/L	28.524
>	Mo	95	234.339	128.336	0.032	ug/L	21.221
	Mo	97	151.336	76.334	0.037	ug/L	43.966
	Mo r	98	358.717	184.560	0.033	ug/L	20.824
	Rh	103	6.667	13.333		ug/L	
L>	In-1	115	243805.861	216166.642		ug/L	
	Ti	47	388.680	308.676		ug/L	
	Li	7	21837.190	24149.430		mg/L	

**QC Out Of Limits (only failed QC will appear below)**

Measurement Type	Mass	Out of Limits Message
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**ELAN 6100 Quantitative Analysis - Summary Report**

User Name: R.COSTAS User

**Sample ID: 1203001-12**

Sample Description:

Autosampler Position: 31

Sample Date/Time: Wednesday, March 14, 2012 13:56:34

Dataset File: C:\Elandata\Dataset\EL120216\1203001-12.105

Optimization File: C:\Elandata\Optimize\epa.dac

Method File: C:\Elandata\Method\NEPA\2008.MTH + B,Sr,Sn,U,Br - 1 CAL STD DIMOCK.mth

Calibration File: C:\Elandata\System\EL120314.cal

Report Title: QUANTITATIVE ANALYSIS REPORT

analysis 200.8 or equivalent

**SITE: DIMOCK WO1203001**

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Sample Unit	Conc. RSD
Be r	9	1.333	1.333	0.001	ug/L	281.492
> Li u	6	284894.210	334987.888		ug/L	
L Li	6	282766.277	333029.370		ug/L	
> Be	9	1.333	1.333	-0.002	ug/L	72.719
> B	11	93.001	157.337	-0.283	ug/L	6.320
> Al	27	1562.510	1977.608	-0.226	ug/L	21.025
> Sc	45	694240.152	443380.651		ug/L	
> V r	51	4548.639	2664.161	0.033	ug/L	254.280
> Vu	51	43546.497	86078.430	-7.088	ug/L	5.093
> Cr r	52	6602.570	9512.307	-0.851	ug/L	5.692
> Cr	53	13674.101	28695.823	-24.248	ug/L	4.988
> Mn	55	3722.273	2161.992	0.024	ug/L	59.973
> Co	59	96.668	47.001	0.002	ug/L	61.625
> Ni r	60	533.361	461.019	-0.082	ug/L	181.406
> Ni	62	165.670	171.004	-0.317	ug/L	35.361
> Cu r	63	288.675	603.697	-0.144	ug/L	6.900
> Cu	65	149.670	289.675	-0.138	ug/L	10.152
> Zn r	66	227.339	537.024	-0.451	ug/L	2.492
> Zn	67	1214.442	1621.192	-4.768	ug/L	15.653
> Zn	68	326.677	547.025	-0.521	ug/L	3.906
> Ge	72	199200.926	122013.611		ug/L	
> As r	75	1913.543	223.994	0.830	ug/L	10.120
> As u	75	624.032	4344.270	-3.557	ug/L	2.020
> Se r	82	-12.175	7.818	-0.129	ug/L	126.078
> Se	77	-527.900	1256.524	-17.392	ug/L	0.937
> Sr	88	132.669	250.673	-0.012	ug/L	2.495
> Ag r	107	37.334	70.668	-0.008	ug/L	4.690
> Ag	109	28.667	62.668	-0.008	ug/L	3.298
> Cd r	111	247.722	294.635	-0.099	ug/L	32.592
> Cd	106	-3054.953	-2719.513	6.019	ug/L	84.154
> Cd	108	-3250.327	-2883.440	8.532	ug/L	83.760
> Cd	114	28.589	236.018	-0.072	ug/L	3.914
> Cd u	111	17.667	99.335	-0.065	ug/L	2.927
> In	115	337726.504	216166.642		ug/L	
> Sb r	123	15.582	58.080	-0.015	ug/L	3.424
> Sb	121	27.334	76.668	-0.014	ug/L	2.469

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Sample ID: 1203001-12

	Sn	118	152.003	148.670	-0.014	ug/L	19.308
	Sn r	120	249.340	219.339	-0.012	ug/L	22.358
	Ba r	137	63.668	50.001	-0.005	ug/L	42.423
	Ba	135	37.334	25.000	-0.002	ug/L	286.653
>	Tb	159	406271.994	244819.515		ug/L	
	Tl r	205	941.067	839.721	-0.028	ug/L	19.118
	Tl	203	401.681	360.345	-0.028	ug/L	22.426
	U	238	15.000	24.334	-0.001	ug/L	18.970
	Pb	208	1432.400	6009.054	-0.397	ug/L	0.209
	Kr	83	748.377	251.007		ug/L	
	Cl	35	329352.055	28732582.996		mg/L	
	C	12	388583.654	386459.208		mg/L	
	Y	89	408092.713	239993.678		ug/L	
	Br	79	445.017	1790.227	-6.527	ug/L	2.902
	Br	81	5242.842	12370.400	-40.336	ug/L	2.519
>	Ge-1	72	199200.926	122013.611		ug/L	
	Ru	99	1.000	2.333		ug/L	
	Pd	105	2745.533	2440.412		ug/L	
	Ho	165	388571.646	225360.332		ug/L	
	Th	232	79.668	49.667	0.002	ug/L	76.328
	Mo	95	210.005	128.336	0.003	ug/L	377.612
	Mo	97	124.669	76.334	0.003	ug/L	368.026
	Mo r	98	360.865	184.560	0.012	ug/L	60.837
	Rh	103	14.000	13.333		ug/L	
>	In-1	115	337726.504	216166.642		ug/L	
	Tl	47	258.674	308.676		ug/L	
	Li	7	26238.387	24149.430		mg/L	

**QC Out Of Limits (only failed QC will appear below)**

Measurement Type	Mass	Out of Limits Message
Sc 45 Int Std for sample	Sc 45	out of limits 60-125%
In 115 Int Std for sample	In 115	out of limits 60-125%
Ge-1 72 Int Std for sample	Ge-1 72	out of limits 60-125%
In-1 115 Int Std for sample	In-1 115	out of limits 60-125%

**ELAN 6100 Quantitative Analysis - Summary Report**

User Name: R.COSTAS User

**Sample ID: QC Std 2**

Sample Description:

Autosampler Position: 3

Sample Date/Time: Wednesday, March 14, 2012 14:01:32

Dataset File: C:\Elandata\Dataset\EL120216\QC Std 2.106

Optimization File: C:\Elandata\Optimize\epa.dac

Method File: C:\Elandata\Method\EPA\2008.MTH + B,Sr,Sn,U,Br - 1 CAL STD DIMOCK.mth

Calibration File: C:\Elandata\System\EL120314.cal

Report Title: QUANTITATIVE ANALYSIS REPORT

analysis 200.8 or equivalent

**SITE: DIMOCK WO1203001**

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Sample Unit	Conc. RSD
Be r	9	13728.714	1.333	59.499	ug/L	0.794
> Li u	6	211979.607	334987.888		ug/L	
L Li	6	210425.212	333029.370		ug/L	
T Be	9	13728.714	1.333	49.132	ug/L	3.185
B	11	20947.060	157.337	52.504	ug/L	2.139
Al	27	271212.518	1977.608	54.777	ug/L	4.054
> Sc	45	506935.527	443380.651		ug/L	
V r	51	474755.149	2664.161	52.351	ug/L	3.201
Vu	51	589370.020	86078.430	52.234	ug/L	4.109
Cr r	52	386153.360	9512.307	52.860	ug/L	2.091
Cr	53	82317.998	28695.823	52.615	ug/L	7.386
Mn	55	561094.036	2161.992	53.103	ug/L	2.030
Co	59	397687.929	47.001	53.458	ug/L	3.132
Ni r	60	82692.768	461.019	51.662	ug/L	0.805
Ni	62	12376.072	171.004	52.394	ug/L	1.520
Cu r	63	176329.953	603.697	53.007	ug/L	1.100
Cu	65	83649.687	289.675	51.865	ug/L	1.662
Zn r	66	49074.204	537.024	51.447	ug/L	1.879
Zn	67	11846.245	1621.192	51.845	ug/L	6.189
Zn	68	37093.292	547.025	51.368	ug/L	3.601
> Ge	72	130243.744	122013.611		ug/L	
As r	75	62649.199	223.994	50.992	ug/L	2.993
As u	75	65328.941	4344.270	51.103	ug/L	2.826
Se r	82	6605.086	7.818	52.180	ug/L	3.127
Se	77	6416.714	1256.524	52.335	ug/L	0.927
Sr	88	807593.885	250.673	52.717	ug/L	1.206
Ag r	107	303776.808	70.668	52.232	ug/L	1.010
Ag	109	287007.304	62.668	52.042	ug/L	1.964
Cd r	111	70763.388	294.635	51.432	ug/L	1.218
Cd	106	3698.876	-2719.513	52.406	ug/L	1.436
Cd	108	1717.448	-2883.440	50.812	ug/L	3.525
Cd	114	159233.209	236.018	51.653	ug/L	1.367
Cd u	111	70706.231	99.335	51.327	ug/L	1.137
> In	115	219823.547	216166.642		ug/L	
Sb r	123	174330.270	58.080	52.181	ug/L	1.978
Sb	121	229014.969	76.668	51.633	ug/L	2.482

Report Date/Time: Wednesday, March 14, 2012 14:04:53

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Sample ID: QC Std 2

	Sn	118	214994.619	148.670	<b>51.365</b>	ug/L	0.576
	Sn r	120	296295.407	219.339	<b>51.915</b>	ug/L	0.998
	Ba r	137	114970.965	50.001	<b>51.612</b>	ug/L	0.182
	Ba	135	65382.349	25.000	<b>50.472</b>	ug/L	0.562
>	Tb	159	250623.192	244819.515		ug/L	
	Tl r	205	521363.941	839.721	<b>51.613</b>	ug/L	2.843
	Tl	203	224313.076	360.345	<b>52.273</b>	ug/L	4.440
	U	238	823938.009	24.334	<b>53.776</b>	ug/L	1.314
	Pb	208	709137.717	6009.054	<b>52.953</b>	ug/L	0.758
	Kr	83	146.670	251.007		ug/L	
	Cl	35	32600578.218	28732582.996		mg/L	
	C	12	396265.977	386459.208		mg/L	
	Y	89	246651.793	239993.678		ug/L	
	Br	79	13989.184	1790.227	<b>48.730</b>	ug/L	2.913
	Br	81	25209.830	12370.400	<b>49.575</b>	ug/L	3.239
>	Ge-1	72	130243.744	122013.611		ug/L	
	Ru	99	18.334	2.333		ug/L	
	Pd	105	2752.187	2440.412		ug/L	
	Ho	165	240283.869	225360.332		ug/L	
	Th	232	775825.715	49.667	<b>58.249</b>	ug/L	1.396
	Mo	95	127780.860	128.336	<b>50.066</b>	ug/L	2.526
	Mo	97	81022.614	76.334	<b>50.930</b>	ug/L	2.528
	Mo r	98	205658.862	184.560	<b>49.901</b>	ug/L	2.851
	Rh	103	59.334	13.333		ug/L	
>	In-1	115	219823.547	216166.642		ug/L	
	Tl	47	419.016	308.676		ug/L	
	Li	7	19166.394	24149.430		mg/L	

**QC Out Of Limits (only failed QC will appear below)**

Measurement Type	Mass	Out of Limits Message
QC Std 2	Be r 9	CCV (CLC) is out of limits (+/- 10%)

**ELAN 6100 Quantitative Analysis - Summary Report**

User Name: R.COSTAS User

**Sample ID: QC Std 4**

Sample Description:

Autosampler Position: 1

Sample Date/Time: Wednesday, March 14, 2012 14:06:29

Dataset File: C:\Elandata\Dataset\EL120216\QC Std 4.107

Optimization File: C:\Elandata\Optimize\epa.dac

Method File: C:\Elandata\Method\EPA\2008.MTH + B,Sr,Sn,U,Br - 1 CAL STD DIMOCK.mth

Calibration File: C:\Elandata\System\EL120314.cal

Report Title: QUANTITATIVE ANALYSIS REPORT

analysis 200.8 or equivalent

**SITE: DIMOCK WO1203001**

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Sample Unit	Conc. RSD
Be r	9	1.000	1.333	0.001	ug/L	816.353
> Li u	6	219868.621	334987.888		ug/L	
L Li	6	218254.765	333029.370		ug/L	
> Be	9	1.000	1.333	-0.002	ug/L	188.424
> B	11	283.341	157.337	0.264	ug/L	10.397
> Al	27	2018.952	1977.608	-0.048	ug/L	49.300
> Sc	45	505244.961	443380.651		ug/L	
> V r	51	5085.283	2664.161	0.229	ug/L	27.341
> Vu	51	126296.503	86078.430	3.015	ug/L	29.398
> Cr r	52	10358.750	9512.307	-0.067	ug/L	120.557
> Cr	53	41649.784	28695.823	9.552	ug/L	29.897
> Mn	55	974.405	2161.992	-0.142	ug/L	2.843
> Co	59	47.334	47.001	-0.001	ug/L	178.316
> Ni r	60	212.005	461.019	-0.198	ug/L	13.204
> Ni	62	152.003	171.004	-0.185	ug/L	40.416
> Cu r	63	397.014	603.697	-0.088	ug/L	7.533
> Cu	65	194.004	289.675	-0.085	ug/L	10.167
> Zn r	66	317.010	537.024	-0.285	ug/L	7.111
> Zn	67	3132.339	1621.192	6.566	ug/L	20.380
> Zn	68	518.356	547.025	-0.120	ug/L	21.775
> Ge	72	135441.004	122013.611		ug/L	
> As r	75	47.398	223.994	-0.159	ug/L	74.792
> As u	75	4808.220	4344.270	-0.012	ug/L	1670.192
> Se r	82	19.053	7.818	0.079	ug/L	50.419
> Se	77	1443.358	1256.524	0.478	ug/L	249.699
> Sr	88	261.674	250.673	-0.001	ug/L	94.762
> Ag r	107	61.334	70.668	-0.003	ug/L	114.438
> Ag	109	56.001	62.668	-0.003	ug/L	77.488
> Cd r	111	258.274	294.635	-0.050	ug/L	13.767
> Cd	106	-3223.424	-2719.513	-1.019	ug/L	104.153
> Cd	108	-3396.632	-2883.440	-1.247	ug/L	113.054
> Cd	114	95.563	236.018	-0.050	ug/L	7.082
> Cd u	111	41.667	99.335	-0.046	ug/L	1.291
> In	115	245429.455	216166.642		ug/L	
> Sb r	123	46.582	58.080	-0.005	ug/L	17.784
L Sb	121	62.001	76.668	-0.005	ug/L	31.543

Report Date/Time: Wednesday, March 14, 2012 14:09:49

Page 1

Sample ID: QC Std 4

	Sn	118	240.006	148.670	0.017	ug/L	45.697
	Sn r	120	319.343	219.339	0.013	ug/L	83.503
	Ba r	137	54.667	50.001	-0.000	ug/L	692.480
	Ba	135	31.667	25.000	0.003	ug/L	46.722
>	Tb	159	268924.019	244819.515		ug/L	
	Tl r	205	2303.059	839.721	0.127	ug/L	53.009
	Tl	203	987.745	360.345	0.128	ug/L	58.520
	U	238	91.668	24.334	0.004	ug/L	68.078
	Pb	208	912.697	6009.054	-0.399	ug/L	1.868
	Kr	83	147.336	251.007		ug/L	
	Cl	35	31701994.084	28732582.996		mg/L	
	C	12	355578.387	386459.208		mg/L	
	Y	89	261890.737	239993.678		ug/L	
	Br	79	2460.418	1790.227	1.836	ug/L	11.982
	Br	81	13370.744	12370.400	-1.433	ug/L	19.074
>	Ge-1	72	135441.004	122013.611		ug/L	
	Ru	99	2.000	2.333		ug/L	
	Pd	105	2869.564	2440.412		ug/L	
	Ho	165	256347.704	225360.332		ug/L	
	Th	232	3184.743	49.667	0.235	ug/L	34.900
	Mo	95	243.340	128.336	0.034	ug/L	37.039
	Mo	97	149.003	76.334	0.035	ug/L	48.742
	Mo r	98	372.088	184.560	0.035	ug/L	22.062
	Rh	103	8.667	13.333		ug/L	
>	In-1	115	245429.455	216166.642		ug/L	
	Tl	47	331.677	308.676		ug/L	
	Li	7	19899.573	24149.430		mg/L	

#### QC Out Of Limits (only failed QC will appear below)

Measurement Type	Mass	Out of Limits Message
QC Std 4	V u	IBL (LCB) is out of limits ( +/- 0.400ug/L)
QC Std 4	Cr	IBL (LCB) is out of limits ( +/- 0.400ug/L)
QC Std 4	Zn	IBL (LCB) is out of limits ( +/- 0.400ug/L)
QC Std 4	Cd	IBL (LCB) is out of limits ( +/- 0.400ug/L)
QC Std 4	Cd	IBL (LCB) is out of limits ( +/- 0.400ug/L)
QC Std 4	Br	IBL (LCB) is out of limits ( +/- 0.400ug/L)
QC Std 4	Br	IBL (LCB) is out of limits ( +/- 0.400ug/L)

# ICP-MS METALS Technical Review Checklist

(200.8, 6020)

For Internal Use Only

Site Name:

Dimpel

WO#: 1203001

Analyst:

CLUSTA

Date given to Reviewer:

Matrix (circle): Solid / Aqueous / Other

SOP R3QA116-021511 / R3QA155-021511

Program (circle): Superfund / RCRA / WPD (NPDES) / SDWA / Other:

## The signature below indicates the following:

- This data meets the needs of the customer according to the request.
- The analysis was performed as per the SOP, or exceptions documented.
- All documentation needed to recreate the analyses has been reviewed.
- Data Review status set to Peer Reviewed in Element.

1203001-12  
only

Peer Reviewer signature

*[Signature]*

Date accepted

3/15/12

If any data for this case is stored with another case file, give Site Name and WO#

## Peer Reviewer Completes Section Below:

### General:

Raw data is identified with sample ID's, site name, WO#, analyst name, date of analysis.

YES	NO	N/A	Comments
✓	—	—	_____

### Quality Control:

Initial calibration  $\geq .995$

✓ \_\_\_\_\_

Meas. PK Width .6 to .7 amu

✓ \_\_\_\_\_

Exact Mass & Meas. Mass within 1 amu

✓ \_\_\_\_\_

Internal Stds 60-125%

✓ \_\_\_\_\_

SCV  $\pm 10\%$ ;

\_\_\_\_\_ No for U

CCV  $\pm 10\%$ , 10% frequency, and end of run;

(If CCV fails at  $<\pm 15\%$ , can keep the data but have to recalibrate before continuing, or qualify data.)

✓ \_\_\_\_\_

LCV  $\pm 50\%$ ;

✓ \_\_\_\_\_

IBL  $< |$ Reporting limit $|$ , analyzed with each CCV;

✓ \_\_\_\_\_

BS (LCS)  $\pm 15\%$

✓ \_\_\_\_\_

SRM within vendor acceptance limits;

\_\_\_\_\_ ✓ \_\_\_\_\_

BLK  $< |$ Reporting limit $|$ ;

\_\_\_\_\_

(if  $>$ Reporting Limit and  $>1/10$  of sample - must qualify)

✓ \_\_\_\_\_

MS [ $\pm 30\%$ ] unless spike is  $<30\%$  of sample value;

✓ \_\_\_\_\_

RPDs from DUP  $\leq 20\%$  aqueous & 35% soils;

✓ \_\_\_\_\_

Sample results < CAL or within documented linear range;

**Calculations/Report:**

Calculations and transcriptions checked.

Element Draft Report reviewed.

Deviations and problems documented.

**NOTE:** When soils are being reported, the *sample qualifier* 'dry' or 'wet' must be entered so that it appears in the header of the Element report. This will signify that the data was report 'wet weight' or 'dry weight' as appropriate.

Additional Comments by Peer Reviewer:

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**Analyst Ensures that the Data Case File is Complete and Accurate:**

- Bench sheet
- Calibration report
- Instrument run log
- Standard/Reagent Prep log
- Daily Performance Report

- TV sheets
- Element Peer Review report
- Raw data
- Data status set to analyzed
- Tune Report

Additional Comments by Analyst on data issues:

Use No SCV for U. Does not impact data.

RC 3.15.12

Ajax J

RC 3.16.12

**On-Demand Data Checklist**  
*(used in addition to routine TRC)*  
For Internal Use Only

Parameter: U

Procedure/Method/Reference: 200.8

Site Name: Dimock

Analyst: R. Costello

WO#: 1203001

**The signature below indicates the following:**

- The analysis was performed as per the On-Demand requirements below.

Peer Reviewer signature Joe D

Date accepted 3/5/12

**Peer Reviewer Completes Section Below:**

This is a special request which falls outside our routine protocols. Therefore, these samples were analyzed and the quality control (QC) were evaluated based on the "On Demand" criteria. These protocols include all the QC checks as per routine analyses plus special verification of the performance of the analytical method at the reported quantitation limit/s. These protocols are specified in the EPA Region III OASQA Laboratory Quality Manual, current version.

**Quality Control:** YES NO N/A Comments

A written procedure or reference must be available for the method being performed and referenced in the narrative. If the method to be performed is unique, the procedures must be fully documented. ✓ \_\_\_\_\_

Calibration of the instrumentation or analytical procedure must be according to the method or procedure. ✓ \_\_\_\_\_

Calibration verified by analysis of second source standard (SCV, SRM), if available. Concentration must be in the range of the calibration. Results must be within the method, procedure, client or in-house limits. ✓ \_\_\_\_\_

Analysis of one method blank (BLK) with each batch. Ideally, the results should be less than the expected quantitation levels set by the method, procedure, or in-house requirements. ✓ \_\_\_\_\_

Analysis of one matrix spike (MS) with each batch. For samples or parameters which do not lend themselves to matrix spiking, a BS or SRM sample must be analyzed. Results of spikes must be within the method, procedure, client or in-house limits. ✓ \_\_\_\_\_

Analysis of one duplicate analyses (DUP) or a quality control sample such as an SRM or BS with each batch. If duplicate analyses is not possible, e.g., insufficient sample quantity, a quality control sample must be analyzed in duplicate, if available. Results of duplicate analyses must be

within the method, procedure, client or in-house limits.

At least one blank spike (BS) must be carried through the entire method and analyzed with each batch. The concentration of the BS should be at the quantitation level or at the level of the expected sample results if known. Results of the BS must be within the method, procedure, client or in-house limits.

Any additional quality control items, such as surrogates, internal standards, etc., which the referenced method or procedure requires should be analyzed. Results must be within the method or, procedure limits.

The analyst must document the impact on the usability of the reported data by applying qualifier codes if applicable and including a summary in the case file.

**Additional Comments:**

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# ICP-MS ELAN 6100 RUN LOG

Computer Name: D0303SLABF103A

Dataset File Path: C:\Elandata\Dataset\EL120315\

Optimization File: C:\Elandata\Optimize\epa.dac

Tuning File: C:\Elandata\Tuning\epa.tun

Method File: C:\Elandata\Method\EPA2008.MTH + B,Sr,Sn,U,Br - 1 CAL STD DIMOCK.mth

Report Date/Time: Thursday, March 15, 2012 12:45:42

Batch ID: WO# 1203001

Analyst: R.COSTAS

Site: DIMOCK

Inst Run: EL120315

**Matrix HNO<sub>3</sub>/HCl. Samples diluted 2.5X unless otherwise noted below. X**

**Matrix 1% nitric. No dilution unless indicated below.**

R COSTAS  
3.15.12

Report only 1203001-12

## The Dataset

Batch ID	Description	Sample ID	Date and Time	Samp. File Name	Read Type
	Blank	08:59:31 Thu 15-Mar-12	C:\Elandata\Dataset\EL120315\Blank.001	Blank	
	Blank	09:04:54 Thu 15-Mar-12	C:\Elandata\Dataset\EL120315\Blank.002	Blank	
	Standard 1	09:09:50 Thu 15-Mar-12	C:\Elandata\Dataset\EL120315\Standard 1.003	Standard #1	
	Standard 2	09:14:47 Thu 15-Mar-12	C:\Elandata\Dataset\EL120315\Standard 2.004	Standard #2	
	Standard 3	09:19:46 Thu 15-Mar-12	C:\Elandata\Dataset\EL120315\Standard 3.005	Standard #3	
	QC Std 2	09:24:54 Thu 15-Mar-12	C:\Elandata\Dataset\EL120315\QC Std 2.006	QC Std #2	
	QC Std 4	09:29:51 Thu 15-Mar-12	C:\Elandata\Dataset\EL120315\QC Std 4.007	QC Std #4	
	QC Std 5	09:34:49 Thu 15-Mar-12	C:\Elandata\Dataset\EL120315\QC Std 5.008	QC Std #5	
	QC Std 6	09:39:47 Thu 15-Mar-12	C:\Elandata\Dataset\EL120315\QC Std 6.009	QC Std #6	
	Blank	09:46:52 Thu 15-Mar-12	C:\Elandata\Dataset\EL120315\Blank.010	Blank	
	Standard 1	09:51:48 Thu 15-Mar-12	C:\Elandata\Dataset\EL120315\Standard 1.011	Standard #1	
	Standard 2	09:56:46 Thu 15-Mar-12	C:\Elandata\Dataset\EL120315\Standard 2.012	Standard #2	
	Standard 3	10:01:44 Thu 15-Mar-12	C:\Elandata\Dataset\EL120315\Standard 3.013	Standard #3	
	QC Std 2	10:06:52 Thu 15-Mar-12	C:\Elandata\Dataset\EL120315\QC Std 2.014	QC Std #2	
	QC Std 4	10:11:49 Thu 15-Mar-12	C:\Elandata\Dataset\EL120315\QC Std 4.015	QC Std #4	
	QC Std 5	10:16:47 Thu 15-Mar-12	C:\Elandata\Dataset\EL120315\QC Std 5.016	QC Std #5	
	QC Std 6	10:21:45 Thu 15-Mar-12	C:\Elandata\Dataset\EL120315\QC Std 6.017	QC Std #6	
	QC Std 6	10:27:34 Thu 15-Mar-12	C:\Elandata\Dataset\EL120315\QC Std 6.018	QC Std #6	
	QC Std 6	10:34:35 Thu 15-Mar-12	C:\Elandata\Dataset\EL120315\QC Std 6.019	QC Std #6	
	Blank	10:39:44 Thu 15-Mar-12	C:\Elandata\Dataset\EL120315\Blank.020	Blank	
	QC Std 7	10:46:36 Thu 15-Mar-12	C:\Elandata\Dataset\EL120315\QC Std 7.021	QC Std #7	
	don't use	1203001-11	10:52:40 Thu 15-Mar-12	C:\Elandata\Dataset\EL120315\1203001-11.022	Sample
		1203001-12	10:57:45 Thu 15-Mar-12	C:\Elandata\Dataset\EL120315\1203001-12.023	Sample
	REG	1203001-11	11:02:50 Thu 15-Mar-12	C:\Elandata\Dataset\EL120315\1203001-11.024	Sample
	REG	1203001-12	11:07:55 Thu 15-Mar-12	C:\Elandata\Dataset\EL120315\1203001-12.025	Sample
	REG	QC Std 2	11:12:55 Thu 15-Mar-12	C:\Elandata\Dataset\EL120315\QC Std 2.026	QC Std #2
	REG	QC Std 4	11:17:52 Thu 15-Mar-12	C:\Elandata\Dataset\EL120315\QC Std 4.027	QC Std #4
	REG	1203001-11	12:23:05 Thu 15-Mar-12	C:\Elandata\Dataset\EL120315\1203001-11.028	Sample
	REG	1203001-12	12:28:30 Thu 15-Mar-12	C:\Elandata\Dataset\EL120315\1203001-12.029	Sample
	REG	QC Std 2	12:33:29 Thu 15-Mar-12	C:\Elandata\Dataset\EL120315\QC Std 2.030	QC Std #2
	REG	QC Std 6 female	12:40:19 Thu 15-Mar-12	C:\Elandata\Dataset\EL120315\QC Std 6.031	QC Std #6

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# OASQA TRUE VALUES for ICP-MS Standards and QC

ICP-MS OASQA QL (ppb)	ICPMS OASQA QL(ppb)		QCStd 2 CCV +10% ppb	QCStd 5 SCV +10% ppb	SDWA Primary MCL ppb	LCV +50% ppb (2.5x diluted value)	BS = MS +15% / +30% ppb (2.5x diluted value)
ILM5.4/ISM1.2	SDWA					Lowest possible values are listed	
1.0		Az	50	50		0.4	2/5
20		Al	50	100		0.4	80/200
1.0	2.0	As	50	100	10	0.4	20/50
		B	50 CAL4	100		0.4	20/50
10	100	Ba	50	100	2000	0.4	80/200
1.0	1.0	Be	50	100	4	0.4	2/5
		Br	50 CAL4	*		10	*
1.0	1.0	Cd	50	100	5	0.4	2/5
1.0		Co	50	100		0.4	20/50
2.0	5.0	Cr	50	100	100	0.4	20/50
2.0	5.0	Cu	50	100	50 = POL	0.4	20/50
1.0		Mn	50	100		0.4	20/50
		Mo	50	100		0.4	20/50
1.0		Ni	50	100		0.4	20/50
		Li	*	100		*	*
1.0	2.0	Pb	50	100	5 = POL	0.4	20/50
2.0	5.0	Sb	50	100	6	0.4	20/50
5.0	5.0	Se	50	100	50	0.4	20/50
		Sn	50 CAL4	*		10	20/50
		Sr	50 CAL4	100		0.4	20/50
1.0	2.0	Tl	50	100	2	0.4	20/50
		Tl	*	100		*	*
		U	50	*		0.4	20/50
5.0		V	50	100		0.4	20/50
2.0		Zn	50	100		0.4	20/50
if requested			ppm	ppm	ppm	ppm	ppm
2000	1000	Na	5.00 MIN	0.1	no MCL	0.4	0.4/1.0
2000		Mg	5.00 MIN	0.1		0.4	0.4/1.0
2000		K	5.00 MIN	1.0		0.4	0.8/2.0
2000		Ca	5.00 MIN	0.1		0.4	0.4/1.0
100		Fe	5.00 MIN	0.1		0.4	0.2/0.5

\*added separately to solution

## Making CAL Standards

QC Std 1 (CAL1) = 10ppb/1ppm (5x of 50ppb)

QC Std 2 (CAL2/CCV) = 50ppb/5ppm (2x of 100ppb)

QC Std 3 (CAL3) = 100ppb/10ppm

QC Std 4 = Blank =  $\pm$  LCV

## LCV (diluted value)

x 2.5

0.4 ppb (0.4 ppm) = 0.4ml of 10 ppb (CAL1) to 10ml

1.0 (0.10)

0.8 ppb (0.8 ppm) = 0.8ml of 10 ppb (CAL1) to 10ml

2.0 (0.20)

1.0 ppb (0.1 ppm) = 2x dilution of 2.0 ppb

2.5 (0.25)

2.0 ppb (0.2 ppm) = 0.4ml of 50 ppb (CAL2) to 10ml

5.0 (0.50)

QC Std 1	CAL
QC Std 2	CAL/CCV
QC Std 3	CAL
QC Std 4	IBL
QC Std 5	SCV
QC Std 6	LCV (tv=0.4ppb)
QC Std 7	LCV (tv=0.8ppb)
QC Std 8	LCV (tv=1.0ppb)
QC Std 9	LCV (tv=2.0ppb)
QC Std 10	BLK
QC Std 11	BS (digested)
QC Std 12	BS (undigested)

## EPA - OASQA - ICP-MS Standard/Reagent Preparation

Perkin Elmer ELAN 6100

Analyst:

L. Loskop

Date: 3-15-12

Pipets Logbook # 11

Run Filename: EL120315 (all electronic files saved using Run Filename) SOP #: R3-QA116

SITE/WO#: DIM0011 120300 |

Reagent purity checked 

\* See Certificates of Analysis for analytes and concentrations.

\*\* Matrix of IBL and calibration standards: 0.8% nitric/0.4% HCl (0.8 mL/ 0.4mL to 100 mL final vol)

IBL made daily.

OR

1% nitric (1mL to 100mL final vol)



\*\*SCV (made daily): Single solution made with both stocks and diluted to volume with IBL.

*Stock Solution	Expiration Date	Stock Conc	Vendor	Bar Code	Stock Volume	Final Volume	Final Conc
QC-7A	1-2013	100 mg/L 50 mg/L Ag 1000 mg/L K	Spex	13853	50 $\mu$ L	50 ml	see TV sheet
QC-21	1-2013	100 mg/L	Spex	13852	50 $\mu$ L	50 ml	see TV sheet

Internal Standards Mixed Solution (made daily).

Matrix = 1% nitric (2 mL conc. nitric to 200 mL final volume)

Stock Solution	Stock Conc	Vendor	Bar Code	Stock Volume	Final Conc
Germanium	10 mg/L	Claritas	12704	4 mL	0.200 mg/L
* IS Multi-Mix	10 mg/L	Claritas	6403	0.8 mL	0.04 mg/L
Scandium	10 mg/L	Claritas	12703	2.0 mL	0.08 mg/L
Lithium 6	100 mg/L	Claritas	11126	2 mL	1.0 mg/L

MIN Mixed Stock Solution

Matrix = 1% nitric (1 mL conc. nitric to 100 mL final volume)

Date made: 2-2011

Prepared by: RC

Stock Solution	Stock Conc	Vendor	Bar Code	Stock Volume	Final Conc
Iron	10000 mg/L	High Purity	11886	10 mL	1000 mg/L
Calcium	10000 mg/L	High Purity	10171	10 mL	1000 mg/L
Magnesium	10000 mg/L	High Purity	10172	10 mL	1000 mg/L
Potassium	10000 mg/L	High Purity	11885	10 mL	1000 mg/L
Sodium	10000 mg/L	High Purity	11808	10 mL	1000 mg/L

CAL4 Mixed Stock Solution

Matrix = 2% nitric 2%HCl (2 mL conc. to 100 mL final volume)

Date made: 5-2011

Prepared by: RC

1ml of 10mg/L stock to 100mL for 100  $\mu$ g/L

Stock Solution	Stock Conc	Vendor	Bar Code	Stock Volume	Final Conc
Bromide	1000 ppm	High Purity	10048	1 mL	10 mg/L
Boron	5000 ppm	High Purity	5508	0.2 mL	10 mg/L
Strontium	1000 ppm	High Purity	11882	1.0 mL	10 mg/L
Tin	10,000 ppm	High Purity	5616	0.1 mL	10 mg/L

\*\* CAL3 Mixed Stock Solution of 500 mL final volume

Date made:

Prepared by:

y/12 RC

*Stock Solution	Stock Conc	Vendor	Bar Code	Stock Volume	Final Conc
2008 CAL-1	20 mg/L	Spex	13851	2.5 mL	100 $\mu$ g/L
MIN	1000 mg/L	see above	see above	5 mL	10 mg/L
CAL-4	10 mg/L	see above	see above	5 mL (1ml of 10mg/L stock to 100mL to run as separate CAL-4 standard)	100 $\mu$ g/L run as separate standard: <input type="checkbox"/>

**EPA - OASQA - ICP-MS Standard/Reagent Preparation**  
 Perkin Elmer ELAN 6100

<b>** Calibration Standards (made daily)</b>			
Solution ID	Prepared by diluting:	with IBL	CAL Final Conc. (CAL / MIN) (see true value sheet)
CAL 1	CAL 2	5X	10 µg/L / 1 mg/L
CAL 2 / CCV	CAL 3	2X	50 µg/L / 5 mg/L
CAL 3	-	na	100 µg/L / 10 mg/L

LCV Standard Preparation (made daily) Matrix will be same as IBL.			
LCV Standard Preparation (made daily) Matrix will be same as IBL.	Prepared by diluting:	to Final volume with IBL	Used? <input checked="" type="checkbox"/>
Concentration (CAL / MIN) (see true value sheet)			
LCV (0.4 µg/L / 0.04 mg/L)	0.4 mL of CAL 1	10 mL	<input checked="" type="checkbox"/>
LCV (0.8 µg/L / 0.08 mg/L)	0.8 mL of CAL 1	10 mL	<input checked="" type="checkbox"/>
LCV (1.0 µg/L)	2x of LCV (2.0 µg/L)		
LCV (2.0 µg/L / 0.2 mg/L)	0.4 mL of CAL 2	10 mL	
LCV (4.0 µg/L / 0.4 mg/L)	0.4 mL of CAL 3	10 mL	

Reagent Acid Stocks					
	Vendor	Bar Code		Vendor	Bar Code
Nitric Acid	Fisher	11152	HCl Acid	Fisher	11148

Other solutions									
Solution	Stock Solution	Stock Conc	Vendor	Bar Code	Stock Volume	Final Volume	Final Conc	Date/ Initials	Acid Conc

\* See Certificate of Analysis for analytes.

Certificates of Analysis Logbook # 2

Comments: \_\_\_\_\_

# ELAN 6100 Daily Performance Report

## Sample ID: Sample

Sample Date/Time: Thursday, March 15, 2012 08:50:47

120300

## Sample Description:

Method File: C:\Elandata\Method\EPA\epa.Daily.mth

CEZ  
3/12/12

Dataset File: C:\Elandata\Dataset\Daily Performance\Sample.132

Tuning File: C:\Elandata\Tuning\epa.tun

Optimization File: C:\Elandata\Optimize\epa.dac

Dual Detector Mode: Dual

Acq. Dead Time(ns): 65

Current Dead Time (ns): 65

## Summary

Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
Be	9.0	2214.7	2214.719	52.908	2.4
Co	58.9	100415.0	100414.959	1170.565	1.2
Mg	24.0	45809.0	45808.954	710.894	1.6
Rh	102.9	203725.0	203725.044	2881.146	1.4
In	114.9	229619.3	229619.294	2951.715	1.3
Pb	208.0	100887.9	100887.928	1474.150	1.5
[> Ba	137.9	195863.4	195863.366	2889.511	1.5
[< Ba++	69.0	4793.3	0.024	0.000	1.9
[> Ce	139.9	247527.0	247527.009	4210.224	1.7
[< CeO	155.9	6450.6	0.026	0.001	2.2
Bkgd	220.0	0.7	0.667	0.850	127.5
C	12.0	417320.4	417320.355	3600.710	0.9
C	13.0	6580.9	6580.947	69.327	1.1
U	238.1	232608.5	232608.480	1970.460	0.8
Kr	83.9	1940.9	1940.878	18.423	0.9
Kr	82.9	376.9	376.909	8.027	2.1

## Current Optimization File Data

Current Value	Description
0.88	Nebulizer Gas Flow
7.25	Lens Voltage
1100.00	ICP RF Power
-2250.00	Analog Stage Voltage
1900.00	Pulse Stage Voltage
70.00	Discriminator Threshold
-6.00	AC Rod Offset

## Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	25	5.0	2633.5
Co	59	25	5.8	77996.4
In	115	25	7.3	162111.4

Sample ID: Sample

Report Date/Time: Thursday, March 15, 2012 08:53:34

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DIM0205579

DIM0205679

1000

200

100

100

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100

100

100

**ELAN 6100 Quantitative Analysis - Summary Report**

User Name: User

**Sample ID: Blank**

Sample Description:

Autosampler Position: 1

Sample Date/Time: Thursday, March 15, 2012 09:46:52

Dataset File: C:\Elandata\Dataset\EL120315\Blank.010

Optimization File: C:\Elandata\Optimize\epa.dac

Method File: C:\Elandata\Method\EPA\2008.MTH + B,Sr,Sn,U,Br - 1 CAL STD DIMOCK.mth

Calibration File:

Report Title: QUANTITATIVE ANALYSIS REPORT

analysis 200.8 or equivalent

120300  
CE 4/2/12

**SITE: DIMOCK 1203001**

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Sample Unit	Conc. RSD
Be r	9	144.003			ug/L	
Li u	6	281809.338			ug/L	
Li	6	279716.379			ug/L	
Be	9	144.003			ug/L	
B	11	250.673			ug/L	
Al	27	2958.932			ug/L	
Sc	45	562754.764			ug/L	
V r	51	6166.366			ug/L	
V u	51	107078.035			ug/L	
Cr r	52	11412.241			ug/L	
Cr	53	35642.987			ug/L	
Mn	55	872.392			ug/L	
Co	59	4048.773			ug/L	
Ni r	60	242.006			ug/L	
Ni	62	167.670			ug/L	
Cu r	63	532.690			ug/L	
Cu	65	246.340			ug/L	
Zn r	66	722.375			ug/L	
Zn	67	2489.100			ug/L	
Zn	68	773.380			ug/L	
Ge	72	155886.169			ug/L	
As r	75	43.200			ug/L	
As u	75	4405.305			ug/L	
Se r	82	5.186			ug/L	
Se	77	1356.163			ug/L	
Sr	88	195.338			ug/L	
Ag r	107	75.334			ug/L	
Ag	109	51.001			ug/L	
Cd r	111	301.429			ug/L	
Cd	106	-3560.056			ug/L	
Cd	108	-3778.984			ug/L	
Cd	114	85.078			ug/L	
Cd u	111	40.667			ug/L	
In	115	290479.820			ug/L	
Sb r	123	58.455			ug/L	
Sb	121	88.001			ug/L	

Report Date/Time: Thursday, March 15, 2012 09:50:12

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Sample ID: Blank

	Sn	118	158.670	ug/L
	Sn r	120	208.338	ug/L
	Ba r	137	1262.783	ug/L
	Ba	135	715.040	ug/L
>	Tb	159	317043.234	ug/L
	Tl r	205	6618.579	ug/L
	Tl	203	2735.180	ug/L
	U	238	9438.882	ug/L
	Pb	208	9191.574	ug/L
	Kr	83	170.337	ug/L
	Cl	35	29074374.350	mg/L
	C	12	382237.862	mg/L
	Y	89	307756.903	ug/L
>	Br	79	2146.654	ug/L
	Br	81	13971.490	ug/L
>	Ge-1	72	155886.169	ug/L
	Ru	99	3.000	ug/L
	Pd	105	3193.362	ug/L
	Ho	165	302920.753	ug/L
	Th	232	98.002	ug/L
>	Mo	95	188.004	ug/L
	Mo	97	119.335	ug/L
	Mo r	98	280.009	ug/L
>	Rh	103	7846.746	ug/L
>	In-1	115	290479.820	ug/L
	Ti	47	319.343	ug/L
	Li	7	25807.144	mg/L

**QC Out Of Limits (only failed QC will appear below)**

Measurement Type	Mass	Out of Limits Message
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# ELAN 6100 Quantitative Analysis - Summary Report

User Name: User

## Sample ID: Standard 1

Sample Description:

Autosampler Position: 2

Sample Date/Time: Thursday, March 15, 2012 09:51:48

Dataset File: C:\Elandata\Dataset\EL120315\Standard 1.011

Optimization File: C:\Elandata\Optimize\epa.dac

Method File: C:\Elandata\Method\EPA\2008.MTH + B,Sr,Sn,U,Br - 1 CAL STD DIMOCK.mth

Calibration File:

Report Title: QUANTITATIVE ANALYSIS REPORT

analysis 200.8 or equivalent

## SITE: DIMOCK 1203001

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Sample Unit	Conc. RSD
Ber	9	4553.393	144.003	10.000	ug/L	2.304
> Liu	6	238874.059	281809.338		ug/L	
L Li	6	236584.606	279716.379		ug/L	
T Be	9	4553.393	144.003	10.000	ug/L	2.009
B	11	4650.452	250.673	10.000	ug/L	2.536
Al	27	67114.873	2958.932	10.000	ug/L	0.710
> Sc	45	569616.283	562754.764		ug/L	
Vr	51	104457.668	6166.366	10.000	ug/L	1.261
Vu	51	171440.608	107078.035	10.000	ug/L	4.026
Cr r	52	92915.425	11412.241	10.000	ug/L	2.024
Cr	53	33052.861	35642.987	10.000	ug/L	24.838
Mn	55	125604.017	872.392	10.000	ug/L	3.661
Co	59	138003.057	4048.773	10.000	ug/L	2.900
Nir	60	18944.825	242.006	10.000	ug/L	2.776
Ni	62	2878.234	167.670	10.000	ug/L	2.857
Cur	63	40283.287	532.690	10.000	ug/L	0.237
Cu	65	19327.111	246.340	10.000	ug/L	0.560
Zn r	66	13407.141	722.375	10.000	ug/L	1.440
Zn	67	4463.673	2489.100	10.000	ug/L	3.586
Zn	68	10482.910	773.380	10.000	ug/L	1.090
> Ge	72	157702.069	155886.169		ug/L	
As r	75	14071.982	43.200	10.000	ug/L	2.917
As u	75	15787.676	4405.305	10.000	ug/L	3.517
Se r	82	1414.957	5.186	10.000	ug/L	2.169
Se	77	1707.847	1356.163	10.000	ug/L	24.430
Sr	88	182221.093	195.338	10.000	ug/L	3.173
Ag r	107	70970.030	75.334	10.000	ug/L	1.807
Ag	109	67384.871	51.001	10.000	ug/L	2.693
Cd r	111	16299.495	301.429	10.000	ug/L	4.058
Cd	106	-3765.025	-3560.056	10.000	ug/L	10.943
Cd	108	-4358.075	-3778.984	10.000	ug/L	21.330
Cd	114	36912.163	85.078	10.000	ug/L	0.785
Cd u	111	16077.947	40.667	10.000	ug/L	3.863
> In	115	392658.578	290479.820		ug/L	
Sb r	123	39433.585	58.455	10.000	ug/L	2.364
Sb	121	52268.845	88.001	10.000	ug/L	3.618

Report Date/Time: Thursday, March 15, 2012 09:55:09

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Sample ID: Standard 1

	Sn	118	48869.935	158.670	10.000	ug/L	2.667
	Sn r	120	67491.125	208.338	10.000	ug/L	2.241
	Ba r	137	41936.102	1262.783	10.000	ug/L	2.384
	Ba	135	24085.894	715.040	10.000	ug/L	3.478
>	Tb	159	317620.742	317043.234		ug/L	
	Tl r	205	197276.011	6618.579	10.000	ug/L	2.893
	Tl	203	82252.013	2735.180	10.000	ug/L	1.886
	U	238	317648.075	9438.882	10.000	ug/L	2.609
L	Pb	208	266778.424	9191.574	10.000	ug/L	1.960
	Kr	83	178.671	170.337		ug/L	
	Cl	35	14285627.187	29074374.350		mg/L	
	C	12	483522.208	382237.862		mg/L	
	Y	89	422256.870	307756.903		ug/L	
>	Br	79	3973.066	2146.654	10.000	ug/L	0.479
	Br	81	16025.176	13971.490	10.000	ug/L	7.728
L>	Ge-1	72	157702.069	155886.169		ug/L	
	Ru	99	8.000	3.000		ug/L	
	Pd	105	4691.478	3193.362		ug/L	
	Ho	165	298762.196	302920.753		ug/L	
	Th	232	184480.465	98.002	10.000	ug/L	1.620
>	Mo	95	28579.615	188.004	10.000	ug/L	2.019
	Mo	97	18092.102	119.335	10.000	ug/L	4.258
	Mo r	98	47213.161	280.009	10.000	ug/L	3.391
	Rh	103	102190.694	7846.746		ug/L	
L>	In-1	115	392658.578	290479.820		ug/L	
	Tl	47	370.346	319.343		ug/L	
	Li	7	28229.998	25807.144		mg/L	

**QC Out Of Limits (only failed QC will appear below)**

Measurement Type	Mass	Out of Limits Message
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**ELAN 6100 Quantitative Analysis - Summary Report**

User Name: User

**Sample ID: Standard 2**

Sample Description:

Autosampler Position: 3

Sample Date/Time: Thursday, March 15, 2012 09:56:46

Dataset File: C:\Elandata\Dataset\EL120315\Standard 2.012

Optimization File: C:\Elandata\Optimize\epa.dac

Method File: C:\Elandata\Method\EPA\2008.MTH + B,Sr,Sn,U,Br - 1 CAL STD DIMOCK.mth

Calibration File:

Report Title: QUANTITATIVE ANALYSIS REPORT

analysis 200.8 or equivalent

**SITE: DIMOCK 1203001**

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Sample Unit	Conc. RSD
Be r	9	15172.101	144.003	<b>48.958</b>	ug/L	4.165
> Li u	6	252121.094	281809.338		ug/L	
L Li	6	250133.367	279716.379		ug/L	
> Be	9	15172.101	144.003	<b>49.197</b>	ug/L	1.560
B	11	21780.689	250.673	<b>50.017</b>	ug/L	4.044
Al	27	279178.611	2958.932	<b>49.757</b>	ug/L	2.794
> Sc	45	553364.809	562754.764		ug/L	
V r	51	487605.690	6166.366	<b>50.018</b>	ug/L	1.341
Vu	51	591089.305	107078.035	<b>50.721</b>	ug/L	2.073
Cr r	52	403948.351	11412.241	<b>49.989</b>	ug/L	5.256
Cr	53	79601.996	35642.987	<b>52.693</b>	ug/L	6.248
Mn	55	587579.961	872.392	<b>49.938</b>	ug/L	2.305
Co	59	421630.040	4048.773	<b>48.952</b>	ug/L	4.031
Ni r	60	87587.747	242.006	<b>49.924</b>	ug/L	2.472
Ni	62	12962.376	167.670	<b>49.947</b>	ug/L	3.529
Cu r	63	185108.072	532.690	<b>49.913</b>	ug/L	3.477
Cu	65	89017.075	246.340	<b>49.917</b>	ug/L	3.311
Zn r	66	53287.466	722.375	<b>49.775</b>	ug/L	1.455
Zn	67	12787.748	2489.100	<b>50.264</b>	ug/L	1.736
Zn	68	40708.180	773.380	<b>49.760</b>	ug/L	1.529
> Ge	72	146285.779	155886.169		ug/L	
As r	75	67073.553	43.200	<b>50.056</b>	ug/L	0.696
As u	75	68601.227	4405.305	<b>50.357</b>	ug/L	1.069
Se r	82	7143.383	5.186	<b>50.162</b>	ug/L	1.725
Se	77	6657.080	1356.163	<b>51.403</b>	ug/L	2.516
Sr	88	841709.867	195.338	<b>49.993</b>	ug/L	0.880
Ag r	107	328619.942	75.334	<b>50.425</b>	ug/L	1.318
Ag	109	313344.006	51.001	<b>50.431</b>	ug/L	2.036
Cd r	111	76281.326	301.429	<b>50.471</b>	ug/L	1.488
Cd	106	3221.395	-3560.056	<b>50.852</b>	ug/L	1.844
Cd	108	1288.509	-3778.984	<b>50.894</b>	ug/L	2.416
Cd	114	176345.319	85.078	<b>50.475</b>	ug/L	1.119
Cd u	111	76390.540	40.667	<b>50.466</b>	ug/L	1.438
> In	115	284211.298	290479.820		ug/L	
Sb r	123	188480.105	58.455	<b>50.473</b>	ug/L	2.417
Sb	121	249691.277	88.001	<b>50.473</b>	ug/L	2.041

Report Date/Time: Thursday, March 15, 2012 10:00:06

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Sample ID: Standard 2

	<b>Sn</b>	118	227891.041	158.670	<b>50.016</b>	ug/L	1.714
	<b>Sn r</b>	120	312706.837	208.338	<b>50.003</b>	ug/L	2.576
	<b>Ba r</b>	137	126123.260	1262.783	<b>49.039</b>	ug/L	2.840
	<b>Ba</b>	135	72059.741	715.040	<b>49.023</b>	ug/L	2.837
>	<b>Tb</b>	159	294520.259	317043.234		ug/L	
	<b>Tl r</b>	205	586608.634	6618.579	<b>49.014</b>	ug/L	2.909
	<b>Tl</b>	203	248746.747	2735.180	<b>49.062</b>	ug/L	3.105
	<b>U</b>	238	932727.939	9438.882	<b>48.970</b>	ug/L	2.533
	<b>Pb</b>	208	792645.337	9191.574	<b>49.014</b>	ug/L	1.861
	<b>Kr</b>	83	172.337	170.337		ug/L	
	<b>Cl</b>	35	27617418.203	29074374.350		mg/L	
	<b>C</b>	12	448449.630	382237.862		mg/L	
	<b>Y</b>	89	308238.539	307756.903		ug/L	
>	<b>Br</b>	79	14947.995	2146.654	<b>50.690</b>	ug/L	3.210
	<b>Br</b>	81	25735.585	13971.490	<b>50.595</b>	ug/L	4.497
>	<b>Ge-1</b>	72	146285.779	155886.169		ug/L	
	<b>Ru</b>	99	18.334	3.000		ug/L	
	<b>Pd</b>	105	3530.512	3193.362		ug/L	
	<b>Ho</b>	165	275535.600	302920.753		ug/L	
	<b>Th</b>	232	855623.335	98.002	<b>49.851</b>	ug/L	0.715
>	<b>Mo</b>	95	136939.558	188.004	<b>50.486</b>	ug/L	2.149
	<b>Mo</b>	97	84504.197	119.335	<b>50.447</b>	ug/L	0.926
	<b>Mo r</b>	98	220962.839	280.009	<b>50.449</b>	ug/L	0.375
	<b>Rh</b>	103	22704.693	7846.746		ug/L	
>	<b>In-1</b>	115	284211.298	290479.820		ug/L	
	<b>Tl</b>	47	423.683	319.343		ug/L	
	<b>Li</b>	7	24509.582	25807.144		mg/L	

**QC Out Of Limits (only failed QC will appear below)**

Measurement Type	Mass	Out of Limits Message
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**ELAN 6100 Quantitative Analysis - Summary Report**

User Name: User

**Sample ID: Standard 3**

Sample Description:

Autosampler Position: 4

Sample Date/Time: Thursday, March 15, 2012 10:01:44

Dataset File: C:\Elandata\Dataset\EL120315\Standard 3.013

Optimization File: C:\Elandata\Optimize\epa.dac

Method File: C:\Elandata\Method\EPA\2008.MTH + B,Sr,Sn,U,Br - 1 CAL STD DIMOCK.mth

Calibration File:

Report Title: QUANTITATIVE ANALYSIS REPORT

analysis 200.8 or equivalent

**SITE: DIMOCK 1203001**

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Sample Unit	Conc. RSD
Ber	9	28413.332	144.003	<b>99.386</b>	ug/L	4.660
> Liu	6	239280.320	281809.338		ug/L	
L Li	6	237487.933	279716.379		ug/L	
T Be	9	28413.332	144.003	<b>98.407</b>	ug/L	0.743
T B	11	43625.145	250.673	<b>100.189</b>	ug/L	0.807
T Al	27	543779.631	2958.932	<b>99.495</b>	ug/L	1.748
> Sc	45	552113.317	562754.764		ug/L	
Vr	51	955037.358	6166.366	<b>99.744</b>	ug/L	1.533
Vu	51	1089231.070	107078.035	<b>100.601</b>	ug/L	1.900
Cr r	52	767984.758	11412.241	<b>99.250</b>	ug/L	1.402
Cr	53	129389.272	35642.987	<b>102.233</b>	ug/L	3.021
Mn	55	1121848.986	872.392	<b>99.061</b>	ug/L	2.536
Co	59	779780.256	4048.773	<b>98.019</b>	ug/L	0.449
Ni r	60	163661.997	242.006	<b>98.603</b>	ug/L	0.504
Ni	62	24205.270	167.670	<b>98.696</b>	ug/L	1.195
Cu r	63	346321.478	532.690	<b>98.623</b>	ug/L	0.538
Cu	65	167955.806	246.340	<b>98.805</b>	ug/L	0.891
Zn r	66	100936.047	722.375	<b>98.752</b>	ug/L	2.033
Zn	67	21972.894	2489.100	<b>98.640</b>	ug/L	1.306
Zn	68	76191.266	773.380	<b>98.539</b>	ug/L	0.849
> Ge	72	147244.721	155886.169		ug/L	
As r	75	128999.388	43.200	<b>99.075</b>	ug/L	1.934
As u	75	130338.646	4405.305	<b>99.563</b>	ug/L	1.468
Se r	82	13683.775	5.186	<b>99.035</b>	ug/L	1.577
Se	77	12065.832	1356.163	<b>100.460</b>	ug/L	0.492
Sr	88	1591762.760	195.338	<b>98.685</b>	ug/L	0.619
Ag r	107	609347.679	75.334	<b>101.236</b>	ug/L	0.915
Ag	109	582229.030	51.001	<b>101.276</b>	ug/L	1.139
Cd r	111	144230.625	301.429	<b>101.677</b>	ug/L	0.949
Cd	106	10391.247	-3560.056	<b>102.932</b>	ug/L	3.943
Cd	108	6857.796	-3778.984	<b>103.139</b>	ug/L	1.836
Cd	114	333904.954	85.078	<b>101.672</b>	ug/L	1.257
Cd u	111	144702.118	40.667	<b>101.676</b>	ug/L	0.608
> In	115	250035.492	290479.820		ug/L	
Sb r	123	364044.295	58.455	<b>102.055</b>	ug/L	1.110
Sb	121	470311.192	88.001	<b>101.563</b>	ug/L	0.964

Report Date/Time: Thursday, March 15, 2012 10:05:05

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Sample ID: Standard 3

	Sn	118	434681.713	158.670	<b>99.487</b>	ug/L	2.212
	Sn r	120	595102.971	208.338	<b>99.430</b>	ug/L	0.740
	Ba r	137	236981.222	1262.783	<b>98.842</b>	ug/L	1.814
	Ba	135	136398.250	715.040	<b>98.990</b>	ug/L	2.507
>	Tb	159	288076.856	317043.234		ug/L	
	Tl r	205	1067460.511	6618.579	<b>91.609</b>	ug/L	0.929
	Tl	203	458790.636	2735.180	<b>92.920</b>	ug/L	2.284
	U	238	1672193.750	9438.882	<b>97.790</b>	ug/L	1.439
	Pb	208	1464595.674	9191.574	<b>98.484</b>	ug/L	0.894
	Kr	83	172.337	170.337		ug/L	
	Cl	35	32655400.197	29074374.350		mg/L	
	C	12	445537.462	382237.862		mg/L	
	Y	89	274636.879	307756.903		ug/L	
>	Br	79	27121.336	2146.654	<b>99.514</b>	ug/L	1.194
	Br	81	38142.052	13971.490	<b>99.860</b>	ug/L	2.599
>	Ge-1	72	147244.721	155886.169		ug/L	
	Ru	99	35.334	3.000		ug/L	
	Pd	105	3126.333	3193.362		ug/L	
	Ho	165	272797.219	302920.753		ug/L	
	Th	232	1589162.236	98.002	<b>98.376</b>	ug/L	2.509
>	Mo	95	259248.742	188.004	<b>101.681</b>	ug/L	1.689
	Mo	97	168993.186	119.335	<b>102.728</b>	ug/L	1.537
	Mo r	98	424227.139	280.009	<b>101.943</b>	ug/L	1.376
	Rh	103	129.002	7846.746		ug/L	
>	In-1	115	250035.492	290479.820		ug/L	
	Ti	47	507.689	319.343		ug/L	
	Li	7	22100.949	25807.144		mg/L	

**QC Out Of Limits (only failed QC will appear below)**

Measurement Type	Mass	Out of Limits Message
Corr. Coef.	Cr 53	Correlation Coefficient NOT >0.995

**ELAN 6100 Quantitative Analysis - Summary Report**

User Name: User

**Sample ID: QC Std 2**

Sample Description:

Autosampler Position: 3

Sample Date/Time: Thursday, March 15, 2012 10:06:52

Dataset File: C:\Elandata\Dataset\EL120315\QC Std 2.014

Optimization File: C:\Elandata\Optimize\epa.dac

Method File: C:\Elandata\Method\EPA\2008.MTH + B,Sr,Sn,U,Br - 1 CAL STD DIMOCK.mth

Calibration File:

Report Title: QUANTITATIVE ANALYSIS REPORT

analysis 200.8 or equivalent

**SITE: DIMOCK 1203001**

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Sample Unit	Conc. RSD
Ber	9	14225.952	144.003	<b>52.184</b>	ug/L	4.841
> Liu	6	227295.225	281809.338		ug/L	
Li	6	225455.415	279716.379		ug/L	
Be	9	14225.952	144.003	<b>48.764</b>	ug/L	1.428
B	11	20941.016	250.673	<b>47.561</b>	ug/L	3.876
Al	27	283581.232	2958.932	<b>51.368</b>	ug/L	3.531
> Sc	45	555130.660	562754.764		ug/L	
Vr	51	478800.062	6166.366	<b>49.431</b>	ug/L	3.142
Vu	51	592416.532	107078.035	<b>49.508</b>	ug/L	3.738
Cr r	52	400262.119	11412.241	<b>50.769</b>	ug/L	4.805
Cr	53	83373.541	35642.987	<b>51.973</b>	ug/L	8.904
Mn	55	585299.407	872.392	<b>51.385</b>	ug/L	4.054
Co	59	416624.053	4048.773	<b>51.879</b>	ug/L	3.832
Ni r	60	84559.406	242.006	<b>50.620</b>	ug/L	2.537
Ni	62	12557.701	167.670	<b>50.613</b>	ug/L	2.140
Cu r	63	178504.397	532.690	<b>50.501</b>	ug/L	2.730
Cu	65	88533.491	246.340	<b>51.757</b>	ug/L	3.207
Zn r	66	52543.047	722.375	<b>51.047</b>	ug/L	1.990
Zn	67	12937.338	2489.100	<b>53.184</b>	ug/L	4.535
Zn	68	40711.200	773.380	<b>52.182</b>	ug/L	3.134
> Ge	72	147381.795	155886.169		ug/L	
As r	75	66104.859	43.200	<b>50.736</b>	ug/L	3.941
As u	75	68224.985	4405.305	<b>50.530</b>	ug/L	4.392
Se r	82	6871.830	5.186	<b>49.689</b>	ug/L	2.546
Se	77	6577.375	1356.163	<b>49.309</b>	ug/L	4.280
Sr	88	835049.024	195.338	<b>51.738</b>	ug/L	3.193
Ag r	107	328419.979	75.334	<b>48.858</b>	ug/L	2.074
Ag	109	307247.349	51.001	<b>47.879</b>	ug/L	3.410
Cd r	111	76043.383	301.429	<b>47.926</b>	ug/L	3.293
Cd	106	3122.170	-3560.056	<b>44.826</b>	ug/L	1.900
Cd	108	1334.650	-3778.984	<b>45.368</b>	ug/L	0.588
Cd	114	169778.715	85.078	<b>46.289</b>	ug/L	2.080
Cd u	111	76236.402	40.667	<b>47.974</b>	ug/L	3.263
> In	115	279266.655	290479.820		ug/L	
Sb r	123	183846.995	58.455	<b>46.179</b>	ug/L	4.926
Sb	121	248780.634	88.001	<b>48.129</b>	ug/L	3.860

Report Date/Time: Thursday, March 15, 2012 10:10:13

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Sample ID: QC Std 2

	Sn	118	223797.479	158.670	<b>49.964</b>	ug/L	1.423
	Sn r	120	306673.678	208.338	<b>49.986</b>	ug/L	1.824
	Ba r	137	123117.056	1262.783	<b>49.884</b>	ug/L	3.955
	Ba	135	71384.492	715.040	<b>50.331</b>	ug/L	3.521
>	Tb	159	295215.958	317043.234		ug/L	
	Tl r	205	591129.333	6618.579	<b>49.290</b>	ug/L	5.946
	Tl	203	246600.648	2735.180	<b>48.525</b>	ug/L	4.935
	U	238	913016.257	9438.882	<b>51.875</b>	ug/L	3.704
>	Pb	208	793702.907	9191.574	<b>51.832</b>	ug/L	4.247
	Kr	83	167.670	170.337		ug/L	
	Cl	35	27697056.716	29074374.350		mg/L	
	C	12	429580.011	382237.862		mg/L	
	Y	89	308553.844	307756.903		ug/L	
>	Br	79	15142.714	2146.654	<b>51.997</b>	ug/L	5.454
	Br	81	25815.544	13971.490	<b>50.501</b>	ug/L	11.967
>	Ge-1	72	147381.795	155886.169		ug/L	
	Ru	99	19.334	3.000		ug/L	
	Pd	105	3407.122	3193.362		ug/L	
	Ho	165	277054.584	302920.753		ug/L	
	Th	232	838060.445	98.002	<b>51.877</b>	ug/L	3.933
>	Mo	95	134098.239	188.004	<b>47.085</b>	ug/L	3.805
	Mo	97	82941.372	119.335	<b>45.138</b>	ug/L	4.405
	Mo r	98	216901.727	280.009	<b>46.651</b>	ug/L	2.074
>	Rh	103	22773.589	7846.746		ug/L	
>	In-1	115	279266.655	290479.820		ug/L	
	Ti	47	427.349	319.343		ug/L	
	Li	7	22685.695	25807.144		mg/L	

**QC Out Of Limits (only failed QC will appear below)**

Measurement Type	Mass	Out of Limits Message
QC Std 2	Cd 106	CCV (CLC) is out of limits (+/- 10%)

**ELAN 6100 Quantitative Analysis - Summary Report**

User Name: User

**Sample ID: QC Std 4**

Sample Description:

Autosampler Position: 1

Sample Date/Time: Thursday, March 15, 2012 10:11:49

Dataset File: C:\Elandata\Dataset\EL120315\QC Std 4.015

Optimization File: C:\Elandata\Optimize\epa.dac

Method File: C:\Elandata\Method\EPA\2008.MTH + B,Sr,Sn,U,Br - 1 CAL STD DIMOCK.mth

Calibration File:

Report Title: QUANTITATIVE ANALYSIS REPORT

analysis 200.8 or equivalent

**SITE: DIMOCK 1203001**

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Sample Unit	Conc. RSD
Be r	9	144.336	144.003	0.067	ug/L	66.876
> Li u	6	244117.989	281809.338		ug/L	
L Li	6	242217.582	279716.379		ug/L	
T Be	9	144.336	144.003	0.019	ug/L	248.850
B	11	413.349	250.673	0.404	ug/L	43.048
Al	27	3137.338	2958.932	0.053	ug/L	40.080
> Sc	45	542679.054	562754.764		ug/L	
V r	51	4819.356	6166.366	-0.121	ug/L	92.585
Vu	51	122571.338	107078.035	2.006	ug/L	27.068
Cr r	52	10369.429	11412.241	-0.085	ug/L	56.612
Cr	53	40240.875	35642.987	6.455	ug/L	27.038
Mn	55	781.714	872.392	-0.005	ug/L	96.698
Co	59	4019.758	4048.773	0.015	ug/L	103.167
Ni r	60	201.005	242.006	-0.020	ug/L	58.539
Ni	62	148.003	167.670	-0.057	ug/L	89.554
Cu r	63	503.021	532.690	-0.003	ug/L	194.607
Cu	65	260.340	246.340	0.014	ug/L	73.926
Zn r	66	716.374	722.375	0.016	ug/L	140.342
Zn	67	3228.045	2489.100	4.007	ug/L	30.038
Zn	68	816.718	773.380	0.086	ug/L	20.784
> Ge	72	151025.683	155886.169		ug/L	
As r	75	42.395	43.200	0.001	ug/L	16068.598
As u	75	4273.897	4405.305	0.005	ug/L	2625.034
Se r	82	-7.899	5.186	-0.091	ug/L	76.066
Se	77	1249.734	1356.163	-0.581	ug/L	87.189
Sr	88	212.672	195.338	0.001	ug/L	35.271
Ag r	107	88.668	75.334	0.002	ug/L	102.745
Ag	109	70.001	51.001	0.003	ug/L	44.067
Cd r	111	290.259	301.429	-0.002	ug/L	478.915
Cd	106	-3695.520	-3560.056	-1.488	ug/L	66.468
Cd	108	-3908.532	-3778.984	-1.979	ug/L	63.199
Cd	114	64.317	85.078	-0.005	ug/L	67.100
Cd u	111	30.667	40.667	-0.006	ug/L	33.245
> In	115	283584.245	290479.820		ug/L	
Sb r	123	66.122	58.455	0.002	ug/L	105.030
Sb	121	85.001	88.001	-0.000	ug/L	1700.315

Report Date/Time: Thursday, March 15, 2012 10:15:09

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Sample ID: QC Std 4

	Sn	118	274.008	158.670	0.025	ug/L	33.563
	Sn r	120	358.345	208.338	0.024	ug/L	27.147
	Ba r	137	1250.114	1262.783	0.007	ug/L	72.679
	Ba	135	714.374	715.040	0.011	ug/L	234.238
>	Tb	159	309598.563	317043.234		ug/L	
	Tl r	205	8814.830	6618.579	0.189	ug/L	33.970
	Tl	203	3635.232	2735.180	0.183	ug/L	31.527
	U	238	9653.150	9438.882	0.024	ug/L	32.629
	Pb	208	8889.430	9191.574	-0.005	ug/L	214.491
	Kr	83	180.004	170.337		ug/L	
	Cl	35	28975108.214	29074374.350		mg/L	
	C	12	377441.331	382237.862		mg/L	
	Y	89	301493.595	307756.903		ug/L	
	Br	79	2450.748	2146.654	1.434	ug/L	8.835
	Br	81	13312.311	13971.490	-0.875	ug/L	73.331
>	Ge-1	72	151025.683	155886.169		ug/L	
	Ru	99	3.000	3.000		ug/L	
	Pd	105	3302.409	3193.362		ug/L	
	Ho	165	291009.574	302920.753		ug/L	
	Th	232	948.402	98.002	0.053	ug/L	13.567
	Mo	95	258.340	188.004	0.026	ug/L	34.805
	Mo	97	151.670	119.335	0.019	ug/L	50.530
	Mo r	98	411.498	280.009	0.029	ug/L	31.728
	Rh	103	7768.999	7846.746		ug/L	
>	In-1	115	283584.245	290479.820		ug/L	
	Ti	47	311.343	319.343		ug/L	
	Li	7	23432.876	25807.144		mg/L	

**QC Out Of Limits (only failed QC will appear below)**

Measurement Type	Mass	Out of Limits Message
QC Std 4	B	IBL (LCB) is out of limits ( +/- 0.400ug/L)
QC Std 4	V u	IBL (LCB) is out of limits ( +/- 0.400ug/L)
QC Std 4	Cr	IBL (LCB) is out of limits ( +/- 0.400ug/L)
QC Std 4	Zn	IBL (LCB) is out of limits ( +/- 0.400ug/L)
QC Std 4	Cd	IBL (LCB) is out of limits ( +/- 0.400ug/L)
QC Std 4	Cd	IBL (LCB) is out of limits ( +/- 0.400ug/L)
QC Std 4	Br	IBL (LCB) is out of limits ( +/- 0.400ug/L)
QC Std 4	Br	IBL (LCB) is out of limits ( +/- 0.400ug/L)

**ELAN 6100 Quantitative Analysis - Summary Report**

User Name: User

**Sample ID: QC Std 5**

Sample Description:

Autosampler Position: 5

Sample Date/Time: Thursday, March 15, 2012 10:16:47

Dataset File: C:\Elandata\Dataset\EL120315\QC Std 5.016

Optimization File: C:\Elandata\Optimize\epa.dac

Method File: C:\Elandata\Method\EPA\2008.MTH + B,Sr,Sn,U,Br - 1 CAL STD DIMOCK.mth

Calibration File:

Report Title: QUANTITATIVE ANALYSIS REPORT

analysis 200.8 or equivalent

**SITE: DIMOCK 1203001**

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Sample Unit	Conc. RSD
Be r	9	28907.839	144.003	<b>94.952</b>	ug/L	0.591
Li u	6	254346.818	281809.338		ug/L	
Li	6	244667.434	279716.379		ug/L	
Be	9	28907.839	144.003	<b>100.176</b>	ug/L	0.564
B	11	44028.138	250.673	<b>101.172</b>	ug/L	2.573
Al	27	549548.670	2958.932	<b>100.594</b>	ug/L	0.940
Sc	45	551832.359	562754.764		ug/L	
V r	51	951813.244	6166.366	<b>99.455</b>	ug/L	2.381
V u	51	1071006.056	107078.035	<b>98.789</b>	ug/L	2.117
Cr r	52	792078.198	11412.241	<b>102.453</b>	ug/L	1.896
Cr	53	126376.594	35642.987	<b>99.024</b>	ug/L	0.404
Mn	55	1135461.548	872.392	<b>100.295</b>	ug/L	0.486
Co	59	803321.814	4048.773	<b>101.040</b>	ug/L	1.224
Ni r	60	168240.244	242.006	<b>101.421</b>	ug/L	0.264
Ni	62	24885.772	167.670	<b>101.538</b>	ug/L	0.391
Cu r	63	360428.107	532.690	<b>102.695</b>	ug/L	0.471
Cu	65	175554.972	246.340	<b>103.340</b>	ug/L	3.604
Zn r	66	104357.864	722.375	<b>104.464</b>	ug/L	1.246
Zn	67	22293.821	2489.100	<b>102.800</b>	ug/L	0.931
Zn	68	79212.580	773.380	<b>104.854</b>	ug/L	1.976
Ge	72	143966.563	155886.169		ug/L	
As r	75	127960.505	43.200	<b>100.512</b>	ug/L	0.521
As u	75	127439.344	4405.305	<b>99.565</b>	ug/L	1.412
Se r	82	14049.726	5.186	<b>103.991</b>	ug/L	1.127
Se	77	11954.941	1356.163	<b>101.973</b>	ug/L	3.042
Sr	88	1601079.579	195.338	<b>101.521</b>	ug/L	1.228
Ag r	107	301209.179	75.334	<b>50.230</b>	ug/L	1.069
Ag	109	291234.504	51.001	<b>50.858</b>	ug/L	1.501
Cd r	111	150735.509	301.429	<b>106.690</b>	ug/L	1.272
Cd	106	10898.216	-3560.056	<b>107.120</b>	ug/L	1.618
Cd	108	7190.619	-3778.984	<b>106.835</b>	ug/L	2.270
Cd	114	342699.617	85.078	<b>104.764</b>	ug/L	2.097
Cd u	111	151135.862	40.667	<b>106.617</b>	ug/L	1.267
In	115	249051.995	290479.820		ug/L	
Sb r	123	364776.324	58.455	<b>102.663</b>	ug/L	1.574
Sb	121	480129.415	88.001	<b>104.099</b>	ug/L	1.348

Report Date/Time: Thursday, March 15, 2012 10:20:09

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Sample ID: QC Std 5

	<b>Sn</b>	118	177.670	158.670	<b>0.008</b>	ug/L	25.860
	<b>Sn r</b>	120	266.007	208.338	<b>0.013</b>	ug/L	15.249
	<b>Ba r</b>	137	244247.219	1262.783	<b>102.190</b>	ug/L	3.195
	<b>Ba</b>	135	139882.228	715.040	<b>101.799</b>	ug/L	1.001
>	<b>Tb</b>	159	287305.127	317043.234		ug/L	
	<b>Tl r</b>	205	1103749.765	6618.579	<b>95.000</b>	ug/L	1.478
	<b>Tl</b>	203	473053.619	2735.180	<b>96.127</b>	ug/L	2.482
	<b>U</b>	238	33.667	9438.882	<b>-0.502</b>	ug/L	0.058
>	<b>Pb</b>	208	1504238.362	9191.574	<b>101.448</b>	ug/L	1.520
	<b>Kr</b>	83	180.337	170.337		ug/L	
	<b>Cl</b>	35	27436483.110	29074374.350		mg/L	
	<b>C</b>	12	403790.614	382237.862		mg/L	
	<b>Y</b>	89	277746.169	307756.903		ug/L	
>	<b>Br</b>	79	2295.032	2146.654	<b>1.269</b>	ug/L	15.852
	<b>Br</b>	81	13259.558	13971.490	<b>1.473</b>	ug/L	147.445
>	<b>Ge-1</b>	72	143966.563	155886.169		ug/L	
	<b>Ru</b>	99	33.334	3.000		ug/L	
	<b>Pd</b>	105	3004.617	3193.362		ug/L	
	<b>Ho</b>	165	270264.444	302920.753		ug/L	
	<b>Th</b>	232	2976.663	98.002	<b>0.178</b>	ug/L	39.848
>	<b>Mo</b>	95	254758.268	188.004	<b>100.304</b>	ug/L	0.630
	<b>Mo</b>	97	160431.772	119.335	<b>97.901</b>	ug/L	1.490
	<b>Mö r</b>	98	427165.960	280.009	<b>103.056</b>	ug/L	3.105
	<b>Rh</b>	103	118.669	7846.746		ug/L	
>	<b>In-1</b>	115	249051.995	290479.820		ug/L	
	<b>Tl</b>	47	71096.937	319.343		ug/L	
	<b>Li</b>	7	119351.223	25807.144		mg/L	

**QC Out Of Limits (only failed QC will appear below)**

Measurement Type	Mass	Out of Limits Message
QC Std 5	U 238	SCV (LVM) is out of limits ( +/- 10%)

**ELAN 6100 Quantitative Analysis - Summary Report**

User Name: User

**Sample ID: QC Std 6**

Sample Description:

Autosampler Position: 9

Sample Date/Time: Thursday, March 15, 2012 10:21:45

Dataset File: C:\Elandata\Dataset\EL120315\QC Std 6.017

Optimization File: C:\Elandata\Optimize\epa.dac

Method File: C:\Elandata\Method\EPA\2008.MTH + B,Sr,Sn,U,Br - 1 CAL STD DIMOCK.mth

Calibration File:

Report Title: QUANTITATIVE ANALYSIS REPORT

analysis 200.8 or equivalent

**SITE: DIMOCK 1203001**

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Sample Unit	Conc. RSD
Be r	9	1856.243	144.003	<b>6.564</b>	ug/L	2.720
> Li u	6	222771.336	281809.338		ug/L	
L Li	6	220612.433	279716.379		ug/L	
> Be	9	1856.243	144.003	<b>5.787</b>	ug/L	1.542
B	11	659.035	250.673	<b>0.912</b>	ug/L	29.850
Al	27	11556.796	2958.932	<b>1.532</b>	ug/L	3.258
> Sc	45	568089.207	562754.764		ug/L	
V r	51	9247.835	6166.366	<b>0.309</b>	ug/L	15.749
Vu	51	75946.633	107078.035	<b>-3.193</b>	ug/L	6.316
Cr r	52	14406.622	11412.241	<b>0.368</b>	ug/L	2.958
Cr	53	23872.903	35642.987	<b>-12.738</b>	ug/L	4.581
Mn	55	6382.377	872.392	<b>0.472</b>	ug/L	0.967
Co	59	60198.907	4048.773	<b>6.890</b>	ug/L	0.478
Ni r	60	1070.085	242.006	<b>0.484</b>	ug/L	2.960
Ni	62	272.341	167.670	<b>0.411</b>	ug/L	20.002
Cu r	63	2708.504	532.690	<b>0.602</b>	ug/L	5.136
Cu	65	1313.125	246.340	<b>0.609</b>	ug/L	3.843
Zn r	66	3265.392	722.375	<b>2.333</b>	ug/L	2.439
Zn	67	2564.787	2489.100	<b>0.232</b>	ug/L	314.257
Zn	68	2882.236	773.380	<b>2.564</b>	ug/L	4.715
> Ge	72	157586.128	155886.169		ug/L	
As r	75	671.956	43.200	<b>0.451</b>	ug/L	9.477
As u	75	2675.159	4405.305	<b>-1.311</b>	ug/L	4.734
Se r	82	66.837	5.186	<b>0.416</b>	ug/L	24.478
Se	77	675.035	1356.163	<b>-6.056</b>	ug/L	2.687
Sr	88	7924.492	195.338	<b>0.448</b>	ug/L	1.864
Ag r	107	3020.957	75.334	<b>0.303</b>	ug/L	0.959
Ag	109	2842.887	51.001	<b>0.301</b>	ug/L	1.160
Cd r	111	1054.944	301.429	<b>0.282</b>	ug/L	5.847
Cd	106	-5089.516	-3560.056	<b>-0.868</b>	ug/L	160.216
Cd	108	-5387.705	-3778.984	<b>-1.127</b>	ug/L	186.795
Cd	114	1577.921	85.078	<b>0.278</b>	ug/L	2.098
Cd u	111	706.373	40.667	<b>0.286</b>	ug/L	5.053
> In	115	400261.916	290479.820		ug/L	
Sb r	123	1673.569	58.455	<b>0.279</b>	ug/L	3.416
Sb	121	2206.672	88.001	<b>0.282</b>	ug/L	4.551

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Sample ID: QC Std 6

	Sn	118	2197.003	158.670	0.424	ug/L	1.338
	Sn r	120	3114.662	208.338	0.441	ug/L	1.551
	Ba r	137	17946.779	1262.783	6.356	ug/L	0.803
	Ba	135	10594.399	715.040	6.551	ug/L	2.414
>	Tb	159	316872.099	317043.234		ug/L	
	Tl r	205	86435.247	6618.579	6.262	ug/L	0.958
	Tl	203	35514.563	2735.180	6.069	ug/L	0.474
	U	238	140914.154	9438.882	7.025	ug/L	1.234
	Pb	208	116526.211	9191.574	6.600	ug/L	0.810
	Kr	83	172.337	170.337		ug/L	
	Cl	35	11928074.088	29074374.350		mg/L	
	C	12	477040.530	382237.862		mg/L	
	Y	89	442897.824	307756.903		ug/L	
	Br	79	1385.472	2146.654	-2.906	ug/L	6.931
	Br	81	13772.801	13971.490	-1.310	ug/L	151.960
>	Ge-1	72	157586.128	155886.169		ug/L	
	Ru	99	4.667	3.000		ug/L	
	Pd	105	4590.088	3193.362		ug/L	
	Ho	165	294825.817	302920.753		ug/L	
	Th	232	6950.209	98.002	0.424	ug/L	2.024
	Mo	95	1500.828	188.004	0.305	ug/L	8.780
	Mo	97	955.736	119.335	0.301	ug/L	6.488
	Mo r	98	2471.424	280.009	0.314	ug/L	5.825
	Rh	103	111621.411	7846.746		ug/L	
>	In-1	115	400261.916	290479.820		ug/L	
	Ti	47	352.345	319.343		ug/L	
	Li	7	26620.254	25807.144		mg/L	

#### QC Out Of Limits (only failed QC will appear below)

Measurement Type		Mass	Out of Limits Message
QC Std 6	Be r	9	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	Be	9	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	B	11	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	Al	27	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	V u	51	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	Cr	53	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	Co	59	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	Cu r	63	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	Cu	65	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	Zn r	66	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	Zn	68	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	As u	75	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	Cd	106	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	Cd	108	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
In 115 Int Std for QC Std	In	115	Out of control 60-125%
QC Std 6	Ba r	137	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	Ba	135	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	Tl r	205	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	Tl	203	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)

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Sample ID: QC Std 6

QC Std 6	U	238	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	Pb	208	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	Br	79	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	Br	81	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
In-1 115 Int Std for QC Std	In-1	115	Out of control 60-125%



## ELAN 6100 Quantitative Analysis - Summary Report

User Name: User

**Sample ID: QC Std 6**

Sample Description:

Autosampler Position: 9

Sample Date/Time: Thursday, March 15, 2012 10:27:34

Dataset File: C:\Elandata\Dataset\EL120315\QC Std 6.018

Optimization File: C:\Elandata\Optimize\epa.dac

Method File: C:\Elandata\Method\EPA\2008.MTH + B,Sr,Sn,U,Br - 1 CAL STD DIMOCK.mth

Calibration File:

Report Title: QUANTITATIVE ANALYSIS REPORT

analysis 200.8 or equivalent

**SITE: DIMOCK 1203001**

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Sample Unit	Conc. RSD
Ber	9	351.678	144.003	0.671	ug/L	3.946
> Liu	6	268437.461	281809.338		ug/L	
L Li	6	266425.192	279716.379		ug/L	
> Be	9	351.678	144.003	0.719	ug/L	3.717
> B	11	516.356	250.673	0.613	ug/L	17.768
> Al	27	6165.866	2958.932	0.588	ug/L	5.973
> Sc	45	558094.986	562754.764		ug/L	
> Vr	51	9362.137	6166.366	0.338	ug/L	13.608
> Vu	51	114535.699	107078.035	0.840	ug/L	119.330
> Cr r	52	14199.569	11412.241	0.374	ug/L	10.533
> Cr	53	36423.459	35642.987	1.144	ug/L	267.667
> Mn	55	5898.320	872.392	0.440	ug/L	4.212
> Co	59	9805.677	4048.773	0.724	ug/L	2.122
> Ni r	60	994.408	242.006	0.450	ug/L	1.529
> Ni	62	290.008	167.670	0.503	ug/L	11.720
> Cu r	63	2229.679	532.690	0.480	ug/L	5.212
> Cu	65	1098.756	246.340	0.498	ug/L	4.577
> Zn r	66	1333.462	722.375	0.560	ug/L	13.725
> Zn	67	2717.845	2489.100	0.986	ug/L	158.218
> Zn	68	1260.116	773.380	0.589	ug/L	9.359
> Ge	72	157104.297	155886.169		ug/L	
> As r	75	689.301	43.200	0.464	ug/L	18.814
> As u	75	4983.998	4405.305	0.403	ug/L	30.982
> Se r	82	59.866	5.186	0.372	ug/L	45.226
> Se	77	1402.183	1356.163	0.313	ug/L	305.367
> Sr	88	7945.515	195.338	0.450	ug/L	2.269
> Ag r	107	3099.655	75.334	0.424	ug/L	2.478
> Ag	109	2819.212	51.001	0.406	ug/L	4.989
> Cd r	111	1011.428	301.429	0.420	ug/L	7.608
> Cd	106	-3646.168	-3560.056	-0.091	ug/L	219.987
> Cd	108	-3871.781	-3778.984	-0.142	ug/L	256.974
> Cd	114	1651.744	85.078	0.402	ug/L	0.734
> Cd u	111	757.045	40.667	0.425	ug/L	6.049
> In	115	296396.275	290479.820		ug/L	
> Sb r	123	1762.426	58.455	0.403	ug/L	1.774
> Sb	121	2315.038	88.001	0.406	ug/L	3.807

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Sample ID: QC Std 6

	Sn	118	2266.357	158.670	0.440	ug/L	1.221
	Sn r	120	3020.957	208.338	0.429	ug/L	3.702
	Ba r	137	2954.930	1262.783	0.649	ug/L	6.130
	Ba	135	1778.557	715.040	0.710	ug/L	4.599
>	Tb	159	315777.682	317043.234		ug/L	
	Tl r	205	14367.215	6618.579	0.612	ug/L	2.775
	Tl	203	5888.646	2735.180	0.588	ug/L	0.939
	U	238	22982.857	9438.882	0.729	ug/L	6.711
	Pb	208	20025.422	9191.574	0.671	ug/L	3.404
	Kr	83	169.004	170.337		ug/L	
	Cl	35	29083849.754	29074374.350		mg/L	
	C	12	407501.190	382237.862		mg/L	
	Y	89	309184.773	307756.903		ug/L	
	Br	79	2312.704	2146.654	0.557	ug/L	43.523
	Br	81	14274.047	13971.490	0.739	ug/L	248.372
>	Ge-1	72	157104.297	155886.169		ug/L	
	Ru	99	2.667	3.000		ug/L	
	Pd	105	3312.746	3193.362		ug/L	
	Ho	165	301221.902	302920.753		ug/L	
	Th	232	6615.586	98.002	0.403	ug/L	7.270
	Mo	95	1347.798	188.004	0.383	ug/L	3.106
	Mo	97	860.057	119.335	0.379	ug/L	7.885
	Mo r	98	2273.620	280.009	0.403	ug/L	4.327
	Rh	103	11840.559	7846.746		ug/L	
>	In-1	115	296396.275	290479.820		ug/L	
	Ti	47	377.680	319.343		ug/L	
	Li	7	24812.202	25807.144		mg/L	

#### QC Out Of Limits (only failed QC will appear below)

Measurement Type		Mass	Out of Limits Message
QC Std 6	Be r	9	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	Be	9	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	B	11	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	V u	51	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	Cr	53	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	Co	59	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	Zn	67	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	Cd	106	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	Cd	108	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	Ba r	137	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	Ba	135	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	Tl r	205	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	U	238	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	Pb	208	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	Br	79	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	Br	81	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)

## Method Equation

Analyte	Mass Corrections
Li	6.015-0.0811*Li 7
V r	50.944-2.95*(ClO53 -(0.113*Cr52))
As r	74.922-3.127*(ArCl 77-(0.873*Se 82))
Se r	81.917-1.008696*kr83
Se	76.920 - 1.007833 * Kr 83
Cd r	110.904-1.073*(MoO 108 - (0.712*Pd 106))
Cd	105.907 - 1.223914 * Pd 105
Cd	107.904 - 1.184953 * Pd 105
Cd	113.904 - 0.026826 * Sn 118
In	114.904 - 0.014032 * Sn 118
Sb r	122.904 - 0.127189 * Te 125
Pb	207.977+1*Pb 206 + 1*Pb 207
Mo r	97.906 - 0.110588 * Ru 101
In-1	114.904 - 0.014032 * Sn 118

## Tuning File Name

Tuning File Name epa.tun

Tuning File Path C:\Elandata\Tuning\epa.tun

## Tuning File

Analyte	E Mass	Meas Mass	Mass C	DAC Val	Res DAC Value	Meas Peak W	Custom Res
He	3.016	2.977		599	2070	0.699	
Mg	23.985	23.979		5705	2037	0.689	
Rh	102.905	102.879		24966	1975	0.694	
Ce	139.905	139.879		33962	2015	0.695	
Pb	207.977	207.979		50424	2215	0.679	
U	238.050	237.974		57647	2348	0.697	



# ELAN 6100 Quantitative Analysis Calibration Report

File Name: EL120315.cal  
File Path: C:\Elandata\System\EL120315.cal  
Calibration Type: External Calibration  
WO#: 1203001  
SITE: DIMOCK

## Calibration File Name

File Name EL120315.cal

## Method File Name

File Name 2008.MTH + B,Sr,Sn,U,Br - 1 CAL STD DIMOCK.mth

Path C:\Elandata\Method\EPA\2008.MTH + B,Sr,Sn,U,Br - 1 CAL STD DIMOCK.mth

Analyte	Mass	Curve Type	Slope	Intercept	Corr. Coeff.
Be r	9.012	Linear Thru Zero	0.00	0.00	0.998756
Li u	6.015	Linear Thru Zero	0.00	0.00	0.000000
Li	6.015	Linear Thru Zero	0.00	0.00	0.000000
Be	9.012	Linear Thru Zero	0.00	0.00	0.998766
B	11.009	Linear Thru Zero	0.00	0.00	0.999993
Al	26.982	Linear Thru Zero	0.01	0.00	0.999888
Sc	44.956	Linear Thru Zero	0.00	0.00	0.000000
V r	50.944	Linear Thru Zero	0.02	0.00	0.999987
V u	50.944	Linear Thru Zero	0.02	0.00	0.999420
Cr r	51.941	Linear Thru Zero	0.01	0.00	0.999892
Cr	52.941	Linear Thru Zero	0.00	0.00	0.992867
Mn	54.938	Linear Thru Zero	0.02	0.00	0.999826
Co	58.933	Linear Thru Zero	0.01	0.00	0.997939
Ni r	59.933	Linear Thru Zero	0.00	0.00	0.999618
Ni	61.928	Linear Thru Zero	0.00	0.00	0.999670
Cu r	62.930	Linear Thru Zero	0.01	0.00	0.999627
Cu	64.928	Linear Thru Zero	0.00	0.00	0.999718
Zn r	65.926	Linear Thru Zero	0.01	0.00	0.999643
Zn	66.927	Linear Thru Zero	0.00	0.00	0.999565
Zn	67.925	Linear Thru Zero	0.01	0.00	0.999523
Ge	71.922	Linear Thru Zero	0.00	0.00	0.000000
As r	74.922	Linear Thru Zero	0.01	0.00	0.999832
As u	74.922	Linear Thru Zero	0.01	0.00	0.999827
Se r	81.917	Linear Thru Zero	0.00	0.00	0.999792
Se	76.920	Linear Thru Zero	0.00	0.00	0.998004
Sr	87.906	Linear Thru Zero	0.11	0.00	0.999667
Ag r	106.905	Linear Thru Zero	0.02	0.00	0.999537
Ag	108.905	Linear Thru Zero	0.02	0.00	0.999514
Cd r	110.904	Linear Thru Zero	0.01	0.00	0.999260
Cd	105.907	Linear Thru Zero	0.00	0.00	0.997765
Cd	107.904	Linear Thru Zero	0.00	0.00	0.997477
Cd	113.904	Linear Thru Zero	0.01	0.00	0.999260
Cd u	110.904	Linear Thru Zero	0.01	0.00	0.999265
In	114.904	Linear Thru Zero	0.00	0.00	0.000000
Sb r	122.904	Linear Thru Zero	0.01	0.00	0.998993
Sb	120.904	Linear Thru Zero	0.02	0.00	0.999327
Sn	117.902	Linear Thru Zero	0.02	0.00	0.999949
Sn r	119.902	Linear Thru Zero	0.02	0.00	0.999937
Bar	136.905	Linear Thru Zero	0.01	0.00	0.998706

Ba	134.906	Linear Thru Zero	0.00	0.00	0.998744
Tb	158.925	Linear Thru Zero	0.00	0.00	0.000000
Tl r	204.975	Linear Thru Zero	0.04	0.00	0.995177
Tl	202.972	Linear Thru Zero	0.02	0.00	0.995631
U	238.050	Linear Thru Zero	0.06	0.00	0.997781
Pb	207.977	Linear Thru Zero	0.05	0.00	0.998437
Kr	82.914	Linear Thru Zero	0.00	0.00	0.000000
Cl	34.969	Linear Thru Zero	0.00	0.00	0.000000
C	12.000	Linear Thru Zero	0.00	0.00	0.000000
Y	88.905	Linear Thru Zero	0.00	0.00	0.000000
Br	78.918	Linear Thru Zero	0.00	0.00	0.999445
Br	80.916	Linear Thru Zero	0.00	0.00	0.999627
Ge-1	71.922	Linear Thru Zero	0.00	0.00	0.000000
Ru	98.906	Linear Thru Zero	0.00	0.00	0.000000
Pd	104.905	Linear Thru Zero	0.00	0.00	0.000000
Ho	164.930	Linear Thru Zero	0.00	0.00	0.000000
Th	232.038	Linear Thru Zero	16152.90	0.00	0.999468
Mo	94.906	Linear Thru Zero	0.01	0.00	0.999245
Mo	96.906	Linear Thru Zero	0.01	0.00	0.998407
Mo r	97.906	Linear Thru Zero	0.02	0.00	0.999097
Rh	102.905	Linear Thru Zero	0.00	0.00	0.000000
In-1	114.904	Linear Thru Zero	0.00	0.00	0.000000
Ti	46.952	Linear Thru Zero	0.00	0.00	0.000000
Li	7.016	Linear Thru Zero	0.00	0.00	0.000000

**ELAN 6100 Quantitative Analysis - Summary Report**

User Name: User

**Sample ID: QC Std 6**

Sample Description:

Autosampler Position: 9

Sample Date/Time: Thursday, March 15, 2012 10:34:35

Dataset File: C:\Elandata\Dataset\EL120315\QC Std 6.019

Optimization File: C:\Elandata\Optimize\epa.dac

Method File: C:\Elandata\Method\EPA\2008.MTH + B,Sr,Sn,U,Br - 1 CAL STD DIMOCK.mth

Calibration File:

Report Title: QUANTITATIVE ANALYSIS REPORT

analysis 200.8 or equivalent

**SITE: DIMOCK 1203001**

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Sample Unit	Conc. RSD
Be r	9	340.344	144.003	0.616	ug/L	8.907
> Li u	6	273415.837	281809.338		ug/L	
Li	6	271332.100	279716.379		ug/L	
Be	9	340.344	144.003	0.627	ug/L	9.561
B	11	471.686	250.673	0.461	ug/L	17.642
Al	27	6169.535	2958.932	0.537	ug/L	3.152
> Sc	45	584734.924	562754.764		ug/L	
V r	51	8726.085	6166.366	0.230	ug/L	30.377
Vu	51	117996.246	107078.035	0.653	ug/L	131.036
Cr r	52	14578.949	11412.241	0.337	ug/L	7.696
Cr	53	37705.680	35642.987	0.696	ug/L	499.437
Mn	55	5957.366	872.392	0.421	ug/L	1.519
Co	59	9999.263	4048.773	0.691	ug/L	4.262
Ni r	60	1003.409	242.006	0.428	ug/L	6.155
Ni	62	261.007	167.670	0.336	ug/L	6.485
Cu r	63	2299.700	532.690	0.470	ug/L	4.751
Cu	65	1127.427	246.340	0.485	ug/L	1.291
Zn r	66	1321.460	722.375	0.517	ug/L	0.178
Zn	67	2831.554	2489.100	1.181	ug/L	123.538
Zn	68	1277.786	773.380	0.570	ug/L	11.305
> Ge	72	161179.853	155886.169		ug/L	
As r	75	408.032	43.200	0.255	ug/L	60.770
As u	75	5106.413	4405.305	0.398	ug/L	31.453
Se r	82	47.489	5.186	0.279	ug/L	47.637
Se	77	1457.156	1356.163	0.467	ug/L	14.107
Sr	88	8090.003	195.338	0.447	ug/L	3.474
Ag r	107	2986.943	75.334	0.396	ug/L	3.047
Ag	109	2943.926	51.001	0.412	ug/L	2.635
Cd r	111	984.865	301.429	0.387	ug/L	5.321
Cd	106	-3897.279	-3560.056	-1.010	ug/L	25.891
Cd	108	-4122.872	-3778.984	-1.311	ug/L	38.826
Cd	114	1705.291	85.078	0.404	ug/L	1.553
Cd u	111	725.041	40.667	0.393	ug/L	3.957
> In	115	304834.175	290479.820		ug/L	
Sb r	123	1767.591	58.455	0.392	ug/L	4.089
Sb	121	2340.380	88.001	0.398	ug/L	2.028

Be v pb  
 Co  
 Ba  
 Te

Tall high

Report Date/Time: Thursday, March 15, 2012 10:37:55

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Sample ID: QC Std 6

Sn	118	2283.695	158.670	0.429	ug/L	2.615
Sn r	120	3148.676	208.338	0.433	ug/L	4.090
Ba r	137	3031.294	1262.783	0.641	ug/L	5.215
Ba	135	1790.226	715.040	0.679	ug/L	7.789
		326283.290	317043.234		ug/L	
		14883.537	6618.579	0.615	ug/L	2.207
		6073.460	2735.180	0.586	ug/L	4.944
		23379.723	9438.882	0.709	ug/L	1.605
		20665.019	9191.574	0.669	ug/L	4.192
		174.004	170.337		ug/L	
		28982553.174	29074374.350		mg/L	
		408486.128	382237.862		mg/L	
		323297.432	307756.903		ug/L	
		2342.380	2146.654	0.445	ug/L	25.381
		14425.995	13971.490	-0.076	ug/L	481.483
		161179.853	155886.169		ug/L	
		1.333	3.000		ug/L	
		3527.177	3193.362		ug/L	
		310365.375	302920.753		ug/L	
		6701.662	98.002	0.409	ug/L	7.438
		1375.804	188.004	0.379	ug/L	7.645
		845.055	119.335	0.359	ug/L	4.009
		2203.562	280.009	0.377	ug/L	2.326
		11945.388	7846.746		ug/L	
		304834.175	290479.820		ug/L	
		345.678	319.343		ug/L	
		25693.431	25807.144		mg/L	

#### QC Out Of Limits (only failed QC will appear below)

Measurement Type	Mass	Out of Limits Message
QC Std 6	Be r 9	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	Be 9	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	V u 51	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	Cr 53	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	Co 59	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	Zn 67	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	Cd 106	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	Cd 108	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	Ba r 137	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	Ba 135	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	Tl r 205	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	U 238	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	Pb 208	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	Br 79	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	Br 81	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)

**ELAN 6100 Quantitative Analysis - Summary Report**

User Name: User

**Sample ID: Blank**

Sample Description:

Autosampler Position: 1

Sample Date/Time: Thursday, March 15, 2012 10:39:44

Dataset File: C:\Elandata\Dataset\EL120315\Blank.020

Optimization File: C:\Elandata\Optimize\epa.dac

Method File: C:\Elandata\Method\EPA\2008.MTH + B,Sr,Sn,U,Br - 1 CAL STD DIMOCK.mth

Calibration File:

Report Title: QUANTITATIVE ANALYSIS REPORT

analysis 200.8 or equivalent

**SITE: DIMOCK 1203001**

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Sample Unit	Conc. RSD
Ber	9	46.334			ug/L	
Liu	6	276718.840			ug/L	
Li	6	274689.864			ug/L	
Be	9	46.334			ug/L	
B	11	235.006			ug/L	
Al	27	3004.617			ug/L	
Sc	45	571195.340			ug/L	
Vr	51	6065.043			ug/L	
Vu	51	128669.799			ug/L	
Cr r	52	11471.998			ug/L	
Cr	53	42456.858			ug/L	
Mn	55	793.382			ug/L	
Co	59	1397.141			ug/L	
Nir	60	215.005			ug/L	
Ni	62	152.003			ug/L	
Curr	63	482.687			ug/L	
Cu	65	245.006			ug/L	
Znr	66	609.364			ug/L	
Zn	67	3207.371			ug/L	
Zn	68	710.707			ug/L	
Ge	72	160198.231			ug/L	
Asr	75	-203.403			ug/L	
Asu	75	4859.917			ug/L	
Ser	82	-9.890			ug/L	
Se	77	1498.794			ug/L	
Sr	88	225.672			ug/L	
Ag r	107	55.001			ug/L	
Ag	109	47.001			ug/L	
Cdr	111	295.856			ug/L	
Cd	106	-3605.816			ug/L	
Cd	108	-3830.107			ug/L	
Cd	114	62.254			ug/L	
Cdu	111	29.334			ug/L	
In	115	289489.852			ug/L	
Sbr	123	49.831			ug/L	
Sb	121	64.668			ug/L	

Report Date/Time: Thursday, March 15, 2012 10:43:04

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Sample ID: Blank

	Sn	118	139.669	ug/L
	Sn r	120	214.005	ug/L
	Ba r	137	456.018	ug/L
	Ba	135	280.341	ug/L
>	Tb	159	325367.123	ug/L
	Tl r	205	2673.491	ug/L
	Tl	203	1091.755	ug/L
	U	238	3132.336	ug/L
	Pb	208	3750.057	ug/L
	Kr	83	179.004	ug/L
	Cl	35	30204654.668	mg/L
	C	12	380583.630	mg/L
	Y	89	307149.950	ug/L
	Br	79	2337.045	ug/L
	Br	81	14948.001	ug/L
>	Ge-1	72	160198.231	ug/L
	Ru	99	3.333	ug/L
	Pd	105	3235.381	ug/L
	Ho	165	314317.445	ug/L
	Th	232	158.670	ug/L
	Mo	95	171.004	ug/L
	Mo	97	115.669	ug/L
	Mo r	98	263.786	ug/L
	Rh	103	2642.814	ug/L
>	In-1	115	289489.852	ug/L
	Ti	47	337.344	ug/L
	Li	7	25018.202	mg/L

**QC Out Of Limits (only failed QC will appear below)**

Measurement Type	Mass	Out of Limits Message
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**ELAN 6100 Quantitative Analysis - Summary Report**

User Name: User

**Sample ID: QC Std 7**

Sample Description:

Autosampler Position: 10

Sample Date/Time: Thursday, March 15, 2012 10:46:36

Dataset File: C:\Elandata\Dataset\EL120315\QC Std 7.021

Optimization File: C:\Elandata\Optimize\epa.dac

Method File: C:\Elandata\Method\EPA\2008.MTH + B,Sr,Sn,U,Br - 1 CAL STD DIMOCK.mth

Calibration File: C:\Elandata\System\EL120315.cal

Report Title: QUANTITATIVE ANALYSIS REPORT

analysis 200.8 or equivalent

**SITE: DIMOCK 1203001**

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Sample Unit	Conc. RSD
Be r	9	452.351	144.003	0.957	ug/L	2.462
Li u	6	273823.651	281809.338		ug/L	
Li	6	271700.284	279716.379		ug/L	
Be	9	452.351	144.003	1.017	ug/L	1.827
B	11	582.028	250.673	0.721	ug/L	4.379
Al	27	8743.390	2958.932	1.009	ug/L	7.225
Sc	45	575995.817	562754.764		ug/L	
V r	51	14072.136	6166.366	0.782	ug/L	6.964
V u	51	127626.831	107078.035	1.764	ug/L	35.459
Cr r	52	18371.432	11412.241	0.842	ug/L	5.366
Cr	53	39672.747	35642.987	3.297	ug/L	66.913
Mn	55	11427.268	872.392	0.893	ug/L	5.796
Co	59	13069.559	4048.773	1.082	ug/L	5.038
Ni r	60	1804.230	242.006	0.900	ug/L	2.617
Ni	62	394.014	167.670	0.876	ug/L	8.969
Cu r	63	4059.112	532.690	0.961	ug/L	4.892
Cu	65	1905.255	246.340	0.934	ug/L	3.151
Zn r	66	1769.888	722.375	0.895	ug/L	2.101
Zn	67	3106.329	2489.100	2.225	ug/L	67.983
Zn	68	1627.855	773.380	0.957	ug/L	1.818
Ge	72	163825.222	155886.169		ug/L	
As r	75	1238.975	43.200	0.823	ug/L	26.109
As u	75	5916.667	4405.305	0.913	ug/L	3.711
Se r	82	126.469	5.186	0.788	ug/L	16.519
Se	77	1529.152	1356.163	0.869	ug/L	35.774
Sr	88	16110.690	195.338	0.886	ug/L	1.830
Ag r	107	6232.253	75.334	0.824	ug/L	1.936
Ag	109	5942.022	51.001	0.826	ug/L	2.954
Cd r	111	1658.893	301.429	0.762	ug/L	6.986
Cd	106	-3696.856	-3560.056	0.647	ug/L	62.973
Cd	108	-3916.154	-3778.984	0.981	ug/L	73.168
Cd	114	3370.717	85.078	0.805	ug/L	3.910
Cd u	111	1427.147	40.667	0.784	ug/L	6.307
In	115	310223.726	290479.820		ug/L	
Sb r	123	3498.661	58.455	0.777	ug/L	3.903
Sb	121	4729.167	88.001	0.807	ug/L	1.404

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Sample ID: QC Std 7

	Sn	118	4427.652	158.670	<b>0.858</b>	ug/L	4.078
	Sn r	120	6080.463	208.338	<b>0.862</b>	ug/L	0.095
	Ba r	137	4110.806	1262.783	<b>1.034</b>	ug/L	2.984
	Ba	135	2356.718	715.040	<b>1.037</b>	ug/L	1.537
>	Tb	159	327646.524	317043.234		ug/L	
	Tl r	205	19323.111	6618.579	<b>0.947</b>	ug/L	3.180
	Tl	203	7910.815	2735.180	<b>0.910</b>	ug/L	4.454
	U	238	31542.860	9438.882	<b>1.126</b>	ug/L	1.982
	Pb	208	27393.603	9191.574	<b>1.064</b>	ug/L	3.057
	Kr	83	176.670	170.337		ug/L	
	Cl	35	29030607.008	29074374.350		mg/L	
	C	12	406215.289	382237.862		mg/L	
	Y	89	327149.328	307756.903		ug/L	
>	Br	79	2472.756	2146.654	<b>0.775</b>	ug/L	46.305
	Br	81	15004.107	13971.490	<b>1.159</b>	ug/L	109.380
>	Ge-1	72	163825.222	155886.169		ug/L	
	Ru	99	2.000	3.000		ug/L	
	Pd	105	3406.455	3193.362		ug/L	
	Ho	165	308184.668	302920.753		ug/L	
>	Th	232	14129.142	98.002	<b>0.869</b>	ug/L	6.531
	Mo	95	2603.800	188.004	<b>0.761</b>	ug/L	5.912
	Mo	97	1636.524	119.335	<b>0.740</b>	ug/L	1.252
	Mo r	98	4138.600	280.009	<b>0.744</b>	ug/L	4.249
	Rh	103	11165.543	7846.746		ug/L	
>	In-1	115	310223.726	290479.820		ug/L	
	Ti	47	348.011	319.343		ug/L	
	Li	7	26182.081	25807.144		mg/L	

**QC Out Of Limits (only failed QC will appear below)**

Measurement Type	Mass	Out of Limits Message
QC Std 7	V u	51 LCV (DC1, TV 0.8) is out of limits ( +/- 50%)
QC Std 7	Cr	53 LCV (DC1, TV 0.8) is out of limits ( +/- 50%)
QC Std 7	Zn	67 LCV (DC1, TV 0.8) is out of limits ( +/- 50%)

## ELAN 6100 Quantitative Analysis - Summary Report

User Name: User

**Sample ID: 1203001-11**

Sample Description:

Autosampler Position: 17

Sample Date/Time: Thursday, March 15, 2012 10:52:40

Dataset File: C:\Elandata\Dataset\EL120315\1203001-11.022

Optimization File: C:\Elandata\Optimize\epa.dac

Method File: C:\Elandata\Method\EPA2008.MTH + B,Sr,Sn,U,Br - 1 CAL STD DIMOCK.mth

Calibration File: C:\Elandata\System\EL120315.cal

Report Title: QUANTITATIVE ANALYSIS REPORT

analysis 200.8 or equivalent

Dont report

**SITE: DIMOCK 1203001**

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Sample Unit	Conc. RSD
Be r	9	1.667	144.003	-0.424	ug/L	0.420
> Li u	6	283653.854	281809.338		ug/L	
L Li	6	281565.125	279716.379		ug/L	
> Be	9	1.667	144.003	-0.486	ug/L	0.390
B	11	3132.336	250.673	6.198	ug/L	4.842
Al	27	6169.539	2958.932	0.527	ug/L	11.536
> Sc	45	590447.585	562754.764		ug/L	
V r	51	6318.037	6166.366	-0.015	ug/L	482.079
Vu	51	138605.261	107078.035	2.511	ug/L	35.751
Cr r	52	12564.051	11412.241	0.072	ug/L	64.207
Cr	53	45550.871	35642.987	8.256	ug/L	31.344
Mn	55	1138.429	872.392	0.018	ug/L	2.604
Co	59	65.001	4048.773	-0.494	ug/L	0.223
Ni r	60	275.008	242.006	0.012	ug/L	69.481
Ni	62	183.671	167.670	0.030	ug/L	227.586
Cu r	63	626.032	532.690	0.018	ug/L	52.603
Cu	65	305.009	246.340	0.026	ug/L	43.754
Zn r	66	879.726	722.375	0.101	ug/L	29.546
Zn	67	3343.430	2489.100	3.168	ug/L	34.241
Zn	68	936.733	773.380	0.138	ug/L	50.436
> Ge	72	165026.743	155886.169		ug/L	
As r	75	-133.730	43.200	-0.123	ug/L	34.899
As u	75	5786.567	4405.305	0.792	ug/L	12.488
Se r	82	-1.933	5.186	-0.047	ug/L	383.270
Se	77	1764.821	1356.163	2.735	ug/L	12.406
Sr	88	10707.893	195.338	0.581	ug/L	4.522
Ag r	107	55.667	75.334	-0.003	ug/L	48.801
Ag	109	48.001	51.001	-0.001	ug/L	93.600
Cd r	111	275.639	301.429	-0.018	ug/L	42.535
Cd	106	-3668.466	-3560.056	-0.313	ug/L	153.470
Cd	108	-3877.748	-3778.984	-0.302	ug/L	242.559
Cd	114	62.058	85.078	-0.006	ug/L	19.039
Cd u	111	20.334	40.667	-0.013	ug/L	16.654
> In	115	295370.973	290479.820		ug/L	
Sb r	123	78.498	58.455	0.005	ug/L	56.132
Sb	121	106.002	88.001	0.003	ug/L	71.310

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Sample ID: 1203001-11

	Sn	118	196.671	158.670	0.006	ug/L	56.469
	Sn r	120	250.673	208.338	0.004	ug/L	71.876
	Ba r	137	179.004	1262.783	-0.416	ug/L	0.561
	Ba	135	116.335	715.040	-0.401	ug/L	0.881
>	Tb	159	335395.629	317043.234		ug/L	
	Tl r	205	657.702	6618.579	-0.470	ug/L	1.067
	Tl	203	259.007	2735.180	-0.461	ug/L	0.589
	U	238	18.667	9438.882	-0.503	ug/L	0.025
	Pb	208	1075.373	9191.574	-0.502	ug/L	0.684
	Kr	83	184.004	170.337		ug/L	
	Cl	35	33475925.051	29074374.350		mg/L	
	C	12	519453.551	382237.862		mg/L	
	Y	89	315416.373	307756.903		ug/L	
>	Br	79	1318.126	2146.654	-3.376	ug/L	3.503
	Br	81	13849.262	13971.490	-3.348	ug/L	39.278
>	Ge-1	72	165026.743	155886.169		ug/L	
	Ru	99	3.333	3.000		ug/L	
	Pd	105	3278.398	3193.362		ug/L	
	Ho	165	315560.061	302920.753		ug/L	
>	Th	232	154.670	98.002	0.004	ug/L	22.964
	Mo	95	224.672	188.004	0.011	ug/L	32.256
	Mo	97	141.003	119.335	0.010	ug/L	53.582
	Mo r	98	339.790	280.009	0.011	ug/L	27.360
	Rh	103	9.000	7846.746		ug/L	
>	In-1	115	295370.973	290479.820		ug/L	
	Ti	47	348.345	319.343		ug/L	
	Li	7	25754.974	25807.144		mg/L	

**QC Out Of Limits (only failed QC will appear below)**

Measurement Type	Mass	Out of Limits Message
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**ELAN 6100 Quantitative Analysis - Summary Report**

User Name: User

**Sample ID: 1203001-12**

Sample Description:

Autosampler Position: 18

Sample Date/Time: Thursday, March 15, 2012 10:57:45

Dataset File: C:\Elandata\Dataset\EL120315\1203001-12.023

Optimization File: C:\Elandata\Optimize\epa.dac

Method File: C:\Elandata\Method\EPA\2008.MTH + B,Sr,Sn,U,Br - 1 CAL STD DIMOCK.mth

Calibration File: C:\Elandata\System\EL120315.cal

Report Title: QUANTITATIVE ANALYSIS REPORT

analysis 200.8 or equivalent

**SITE: DIMOCK 1203001**

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Sample Unit	Conc. RSD
Be r	9	1.000	144.003	-0.426	ug/L	0.009
> Liu	6	300495.482	281809.338		ug/L	
L Li	6	297396.564	279716.379		ug/L	
Be	9	1.000	144.003	-0.488	ug/L	0.016
B	11	5232.498	250.673	10.950	ug/L	1.373
Al	27	11631.373	2958.932	1.501	ug/L	17.614
> Sc	45	579424.896	562754.764		ug/L	
V r	51	6952.990	6166.366	0.059	ug/L	181.664
Vu	51	149419.172	107078.035	3.818	ug/L	25.665
Cr r	52	12495.937	11412.241	0.093	ug/L	41.036
Cr	53	49160.157	35642.987	12.871	ug/L	26.421
Mn	55	133470.919	872.392	11.168	ug/L	4.127
Co	59	431.016	4048.773	-0.450	ug/L	1.050
Ni r	60	1090.755	242.006	0.484	ug/L	5.964
Ni	62	171.004	167.670	-0.006	ug/L	1527.369
Cu r	63	3064.308	532.690	0.684	ug/L	4.232
Cu	65	1474.156	246.340	0.685	ug/L	6.835
Zn r	66	1251.114	722.375	0.453	ug/L	7.092
Zn	67	4595.421	2489.100	9.263	ug/L	13.642
Zn	68	4579.075	773.380	4.503	ug/L	2.783
> Ge	72	161370.384	155886.169		ug/L	
As r	75	1138.470	43.200	0.767	ug/L	19.457
As u	75	8097.679	4405.305	2.547	ug/L	9.015
Se r	82	26.433	5.186	0.139	ug/L	75.299
Se	77	2175.636	1356.163	6.562	ug/L	21.690
Sr	88	10292778.578	195.338	582.343	ug/L	0.768
Ag r	107	74.001	75.334	-0.000	ug/L	1081.258
Ag	109	48.334	51.001	-0.000	ug/L	351.405
Cd r	111	277.210	301.429	-0.015	ug/L	73.090
Cd	106	-4340.509	-3560.056	-5.135	ug/L	20.082
Cd	108	-4517.049	-3778.984	-6.476	ug/L	23.758
Cd	114	56.837	85.078	-0.007	ug/L	24.241
Cd u	111	31.334	40.667	-0.006	ug/L	45.138
> In	115	290487.940	290479.820		ug/L	
Sb r	123	237.152	58.455	0.043	ug/L	8.847
Sb	121	258.674	88.001	0.032	ug/L	11.784

Report Date/Time: Thursday, March 15, 2012 11:28:48

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Sample ID: 1203001-12

	Sn	118	217.339	158.670	0.012	ug/L	15.085
	Sn r	120	308.676	208.338	0.015	ug/L	15.858
	Ba r	137	254545.669	1262.783	95.132	ug/L	1.272
	Ba	135	148744.792	715.040	96.733	ug/L	1.292
>	Tb	159	321378.705	317043.234		ug/L	
	Tl r	205	676.703	6618.579	-0.467	ug/L	0.695
	Tl	203	274.341	2735.180	-0.456	ug/L	0.467
	U	238	18690.869	9438.882	0.481	ug/L	1.810
	Pb	208	10469.553	9191.574	0.070	ug/L	9.999
	Kr	83	180.337	170.337		ug/L	
	Cl	35	32537408.859	29074374.350		mg/L	
	C	12	525590.961	382237.862		mg/L	
	Y	89	307718.640	307756.903		ug/L	
>	Br	79	2262.689	2146.654	0.146	ug/L	147.042
	Br	81	15149.065	13971.490	2.503	ug/L	67.731
>	Ge-1	72	161370.384	155886.169		ug/L	
	Ru	99	3.000	3.000		ug/L	
	Pd	105	3819.321	3193.362		ug/L	
	Ho	165	316750.135	302920.753		ug/L	
	Th	232	135.336	98.002	0.002	ug/L	42.718
>	Mo	95	648.367	188.004	0.155	ug/L	2.646
	Mo	97	416.015	119.335	0.155	ug/L	7.139
	Mo r	98	1040.045	280.009	0.157	ug/L	0.864
	Rh	103	245.340	7846.746		ug/L	
>	In-1	115	290487.940	290479.820		ug/L	
	Tl	47	695.038	319.343		ug/L	
	Li	7	38211.064	25807.144		mg/L	

**QC Out Of Limits (only failed QC will appear below)**

Measurement Type	Mass	Out of Limits Message
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## ELAN 6100 Quantitative Analysis - Summary Report

User Name: User

**Sample ID: 1203001-11**

Sample Description: REG

Autosampler Position: 18

Sample Date/Time: Thursday, March 15, 2012 11:02:50

Dataset File: C:\Elandata\Dataset\EL120315\1203001-11.024

Optimization File: C:\Elandata\Optimize\epa.dac

Method File: C:\Elandata\Method\EPA\2008.MTH + B,Sr,Sn,U,Br - 1.CAL STD DIMOCK.mth

Calibration File: C:\Elandata\System\EL120315.cal

Report Title: QUANTITATIVE ANALYSIS REPORT

analysis 200.8 or equivalent

**SITE: DIMOCK 1203001**

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Sample Unit	Conc. RSD
Ber	9	1.333	144.003	-0.425	ug/L	0.739
> Liu	6	303979.965	281809.338		ug/L	
Li	6	300916.221	279716.379		ug/L	
Be	9	1.333	144.003	-0.487	ug/L	0.771
B	11	4725.181	250.673	10.132	ug/L	4.796
Al	27	11070.002	2958.932	1.452	ug/L	20.865
> Sc	45	561852.656	562754.764		ug/L	
Vr	51	8206.645	6166.366	0.209	ug/L	44.994
Vu	51	162866.559	107078.035	5.697	ug/L	24.595
Cr r	52	12739.388	11412.241	0.174	ug/L	7.799
Cr	53	52613.112	35642.987	18.367	ug/L	26.402
Mn	55	119473.678	872.392	10.272	ug/L	4.137
Co	59	410.349	4048.773	-0.451	ug/L	0.585
Ni r	60	951.736	242.006	0.419	ug/L	14.831
Ni	62	164.003	167.670	-0.015	ug/L	253.129
Cu r	63	2775.199	532.690	0.628	ug/L	4.263
Cu	65	1396.476	246.340	0.664	ug/L	7.082
Zn r	66	1154.099	722.375	0.366	ug/L	34.264
Zn	67	4310.255	2489.100	8.000	ug/L	13.083
Zn	68	4233.891	773.380	4.094	ug/L	14.640
> Ge	72	160889.731	155886.169		ug/L	
As r	75	1328.101	43.200	0.899	ug/L	18.801
As u	75	9600.128	4405.305	3.641	ug/L	16.026
Se r	82	21.496	5.186	0.107	ug/L	76.562
Se	77	2612.557	1356.163	10.304	ug/L	23.160
Sr	88	9231969.075	195.338	522.849	ug/L	9.377
Ag r	107	70.001	75.334	-0.001	ug/L	181.230
Ag	109	51.001	51.001	-0.000	ug/L	435.454
Cd r	111	254.112	301.429	-0.035	ug/L	83.163
Cd	106	-3905.261	-3560.056	-1.222	ug/L	339.507
Cd	108	-4075.979	-3778.984	-1.147	ug/L	508.766
Cd	114	62.186	85.078	-0.007	ug/L	1.928
Cd u	111	23.667	40.667	-0.011	ug/L	32.223
> In	115	304696.288	290479.820		ug/L	
Sb r	123	194.442	58.455	0.031	ug/L	24.957
Sb	121	241.006	88.001	0.027	ug/L	22.621

Report Date/Time: Thursday, March 15, 2012 11:28:50

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Sample ID: 1203001-11

	Sn	118	204.338	158.670	0.008	ug/L	47.094
	Sn r	120	279.008	208.338	0.009	ug/L	15.846
	Ba r	137	228717.134	1262.783	82.237	ug/L	16.010
	Ba	135	131953.256	715.040	82.569	ug/L	15.612
>	Tb	159	332898.321	317043.234		ug/L	
	Tl r	205	614.364	6618.579	-0.473	ug/L	0.356
	Tl	203	253.673	2735.180	-0.462	ug/L	1.188
	U	238	16383.740	9438.882	0.327	ug/L	46.202
	Pb	208	9317.006	9191.574	-0.021	ug/L	392.560
	Kr	83	211.338	170.337		ug/L	
	Cl	35	29283333.796	29074374.350		mg/L	
	C	12	516143.264	382237.862		mg/L	
	Y	89	306747.655	307756.903		ug/L	
>	Br	79	2098.975	2146.654	-0.432	ug/L	85.843
	Br	81	13918.145	13971.490	-1.919	ug/L	194.871
>	Ge-1	72	160889.731	155886.169		ug/L	
	Ru	99	1.000	3.000		ug/L	
	Pd	105	3446.814	3193.362		ug/L	
	Ho	165	314218.390	302920.753		ug/L	
>	Th	232	122.002	98.002	0.001	ug/L	87.797
	Mo	95	586.028	188.004	0.126	ug/L	25.352
	Mo	97	412.015	119.335	0.144	ug/L	19.595
	Mo r	98	981.260	280.009	0.136	ug/L	16.093
	Rh	103	231.673	7846.746		ug/L	
>	In-1	115	304696.288	290479.820		ug/L	
	Ti	47	645.034	319.343		ug/L	
	Li	7	37777.363	25807.144		mg/L	

**QC Out Of Limits (only failed QC will appear below)**

Measurement Type	Mass	Out of Limits Message
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## ELAN 6100 Quantitative Analysis - Summary Report

User Name: User

**Sample ID: 1203001-12**

Sample Description: REG

Autosampler Position: 19

Sample Date/Time: Thursday, March 15, 2012 11:07:55

Dataset File: C:\Elandata\Dataset\EL120315\1203001-12.025

Optimization File: C:\Elandata\Optimize\epa.dac

Method File: C:\Elandata\Method\EPA\2008.MTH + B,Sr,Sn,U,Br - 1 CAL STD DIMOCK.mth

Calibration File: C:\Elandata\System\EL120315.cal

Report Title: QUANTITATIVE ANALYSIS REPORT

analysis 200.8 or equivalent

**SITE: DIMOCK 1203001**

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Sample Unit	Conc. RSD
Be r	9	0.333	144.003	-0.427	ug/L	0.732
> Li u	6	159707.191	281809.338		ug/L	
L Li	6	158495.340	279716.379		ug/L	
> Be	9	0.333	144.003	-0.490	ug/L	0.442
> B	11	5094.071	250.673	12.067	ug/L	2.997
> Al	27	3231.711	2958.932	0.104	ug/L	7.597
> Sc	45	514312.799	562754.764		ug/L	
> V r	51	4723.986	6166.366	-0.103	ug/L	24.727
> Vu	51	35843.114	107078.035	-6.808	ug/L	5.943
> Cr r	52	9777.308	11412.241	-0.091	ug/L	42.242
> Cr	53	11543.218	35642.987	-24.457	ug/L	6.814
> Mn	55	623.031	872.392	-0.017	ug/L	18.094
> Co	59	59.001	4048.773	-0.494	ug/L	0.233
> Ni r	60	240.340	242.006	0.013	ug/L	134.815
> Ni	62	150.336	167.670	-0.013	ug/L	96.352
> Cu r	63	472.353	532.690	-0.005	ug/L	195.714
> Cu	65	208.338	246.340	-0.011	ug/L	62.261
> Zn r	66	978.406	722.375	0.232	ug/L	25.527
> Zn	67	1429.814	2489.100	-5.079	ug/L	11.277
> Zn	68	842.055	773.380	0.077	ug/L	105.019
> Ge	72	157025.418	155886.169		ug/L	
> As r	75	286.995	43.200	0.175	ug/L	4.321
> As u	75	455.685	4405.305	-2.946	ug/L	0.968
> Se r	82	11.879	5.186	0.045	ug/L	242.926
> Se	77	49.358	1356.163	-11.501	ug/L	1.422
> Sr	88	20663.591	195.338	1.190	ug/L	0.715
> Ag r	107	44.001	75.334	-0.004	ug/L	37.206
> Ag	109	35.000	51.001	-0.002	ug/L	26.338
> Cd r	111	260.479	301.429	-0.021	ug/L	59.983
> Cd	106	-3569.630	-3560.056	-0.610	ug/L	56.770
> Cd	108	-3744.556	-3778.984	-0.465	ug/L	149.892
> Cd	114	85.374	85.078	0.001	ug/L	1384.360
> Cd u	111	35.334	40.667	-0.003	ug/L	68.085
> In	115	283891.203	290479.820		ug/L	
> Sb r	123	72.498	58.455	0.004	ug/L	38.367
> Sb	121	99.668	88.001	0.003	ug/L	87.741

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Sample ID: 1203001-12

	<b>Sn</b>	118	197.338	158.670	<b>0.008</b>	ug/L	54.063
	<b>Sn r</b>	120	269.341	208.338	<b>0.009</b>	ug/L	26.399
	<b>Ba r</b>	137	254.340	1262.783	<b>-0.384</b>	ug/L	0.486
	<b>Ba</b>	135	142.669	715.040	<b>-0.379</b>	ug/L	2.277
>	<b>Tb</b>	159	315768.042	317043.234		ug/L	
	<b>Tl r</b>	205	577.028	6618.579	<b>-0.474</b>	ug/L	2.087
	<b>Tl</b>	203	235.006	2735.180	<b>-0.463</b>	ug/L	1.783
	<b>U</b>	238	16.000	9438.882	<b>-0.503</b>	ug/L	0.064
	<b>Pb</b>	208	721.687	9191.574	<b>-0.520</b>	ug/L	0.876
	<b>Kr</b>	83	167.337	170.337		ug/L	
	<b>Cl</b>	35	216270.334	29074374.350		mg/L	
	<b>C</b>	12	491605.290	382237.862		mg/L	
	<b>Y</b>	89	295392.813	307756.903		ug/L	
>	<b>Br</b>	79	7194.441	2146.654	<b>18.715</b>	ug/L	7.611
	<b>Br</b>	81	18632.059	13971.490	<b>17.110</b>	ug/L	4.514
>	<b>Ge-1</b>	72	157025.418	155886.169		ug/L	
	<b>Ru</b>	99	1.333	3.000		ug/L	
	<b>Pd</b>	105	3167.684	3193.362		ug/L	
	<b>Ho</b>	165	301030.311	302920.753		ug/L	
	<b>Th</b>	232	79.335	98.002	<b>-0.001</b>	ug/L	26.426
>	<b>Mo</b>	95	230.006	188.004	<b>0.016</b>	ug/L	24.943
	<b>Mo</b>	97	149.670	119.335	<b>0.018</b>	ug/L	41.583
	<b>Mo r</b>	98	392.903	280.009	<b>0.025</b>	ug/L	21.390
	<b>Rh</b>	103	13.333	7846.746		ug/L	
>	<b>In-1</b>	115	283891.203	290479.820		ug/L	
	<b>Ti</b>	47	248.006	319.343		ug/L	
	<b>Li</b>	7	14942.677	25807.144		mg/L	

**QC Out Of Limits (only failed QC will appear below)**

Measurement Type	Mass	Out of Limits Message
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**ELAN 6100 Quantitative Analysis - Summary Report**

User Name: User

**Sample ID: QC Std 2**

Sample Description:

Autosampler Position: 3

Sample Date/Time: Thursday, March 15, 2012 11:12:55

Dataset File: C:\Elandata\Dataset\EL120315\QC Std 2.026

Optimization File: C:\Elandata\Optimize\epa.dac

Method File: C:\Elandata\Method\EPA\2008.MTH + B,Sr,Sn,U,Br - 1 CAL STD DIMOCK.mth

Calibration File: C:\Elandata\System\EL120315.cal

Report Title: QUANTITATIVE ANALYSIS REPORT

analysis 200.8 or equivalent

**SITE: DIMOCK 1203001**

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Sample Unit	Conc. RSD
Ber	9	16378.585	144.003	<b>52.024</b>	ug/L	5.179
> Liu	6	262352.788	281809.338		ug/L	
Li	6	260266.691	279716.379		ug/L	
Be	9	16378.585	144.003	<b>51.789</b>	ug/L	1.382
B	11	24075.598	250.673	<b>50.425</b>	ug/L	5.214
Al	27	306550.074	2958.932	<b>51.175</b>	ug/L	1.421
> Sc	45	602005.314	562754.764		ug/L	
Vr	51	533797.847	6166.366	<b>50.821</b>	ug/L	1.856
Vu	51	639653.148	107078.035	<b>49.227</b>	ug/L	3.677
Cr r	52	438102.538	11412.241	<b>51.221</b>	ug/L	0.488
Cr	53	82783.710	35642.987	<b>44.341</b>	ug/L	11.928
Mn	55	635992.680	872.392	<b>51.456</b>	ug/L	1.334
Co	59	460254.082	4048.773	<b>52.827</b>	ug/L	0.870
Nir	60	94615.963	242.006	<b>52.214</b>	ug/L	0.530
Ni	62	14193.892	167.670	<b>52.765</b>	ug/L	0.516
Cur	63	200017.478	532.690	<b>52.166</b>	ug/L	1.174
Cu	65	96427.251	246.340	<b>51.959</b>	ug/L	0.466
Zn r	66	58576.105	722.375	<b>52.176</b>	ug/L	1.264
Zn	67	13256.886	2489.100	<b>49.230</b>	ug/L	4.447
Zn	68	43975.789	773.380	<b>51.649</b>	ug/L	1.980
> Ge	72	160769.491	155886.169		ug/L	
As r	75	72331.374	43.200	<b>50.861</b>	ug/L	0.319
As u	75	73879.875	4405.305	<b>50.106</b>	ug/L	0.137
Se r	82	7734.284	5.186	<b>51.259</b>	ug/L	2.241
Se	77	7278.644	1356.163	<b>50.156</b>	ug/L	1.668
Sr	88	937928.024	195.338	<b>53.261</b>	ug/L	1.738
Ag r	107	358479.825	75.334	<b>48.061</b>	ug/L	2.046
Ag	109	337755.513	51.001	<b>47.416</b>	ug/L	1.730
Cd r	111	83519.367	301.429	<b>47.425</b>	ug/L	2.056
Cd	106	3745.435	-3560.056	<b>46.562</b>	ug/L	1.851
Cd	108	1630.200	-3778.984	<b>46.599</b>	ug/L	3.680
Cd	114	191126.297	85.078	<b>46.955</b>	ug/L	1.312
Cd u	111	83626.276	40.667	<b>47.415</b>	ug/L	1.922
> In	115	309843.466	290479.820		ug/L	
Sb r	123	202395.348	58.455	<b>45.788</b>	ug/L	2.011
Sb	121	273262.895	88.001	<b>47.621</b>	ug/L	1.727

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Sample ID: QC Std 2

	Sn	118	255234.178	158.670	<b>52.407</b>	ug/L	1.942
	Sn r	120	342974.388	208.338	<b>51.423</b>	ug/L	2.499
	Ba r	137	136321.107	1262.783	<b>50.807</b>	ug/L	3.315
	Ba	135	78237.978	715.040	<b>50.738</b>	ug/L	3.033
>	Tb	159	321055.768	317043.234		ug/L	
	Tl r	205	659307.249	6618.579	<b>50.557</b>	ug/L	2.555
	Tl	203	274083.344	2735.180	<b>49.611</b>	ug/L	3.423
	U	238	1036828.920	9438.882	<b>54.213</b>	ug/L	4.247
>	Pb	208	884274.040	9191.574	<b>53.129</b>	ug/L	3.976
	Kr	83	175.337	170.337		ug/L	
	Cl	35	27907771.650	29074374.350		mg/L	
	C	12	469197.418	382237.862		mg/L	
	Y	89	335691.951	307756.903		ug/L	
>	Br	79	16736.028	2146.654	<b>52.761</b>	ug/L	4.008
	Br	81	28885.105	13971.490	<b>53.062</b>	ug/L	1.623
>	Ge-1	72	160769.491	155886.169		ug/L	
	Ru	99	18.334	3.000		ug/L	
	Pd	105	3623.890	3193.362		ug/L	
	Ho	165	303012.220	302920.753		ug/L	
	Th	232	934296.564	98.002	<b>57.835</b>	ug/L	3.418
>	Mo	95	147597.215	188.004	<b>46.679</b>	ug/L	0.461
	Mo	97	92178.260	119.335	<b>45.187</b>	ug/L	1.626
	Mo r	98	241720.875	280.009	<b>46.854</b>	ug/L	2.457
>	Rh	103	25028.235	7846.746		ug/L	
>	In-1	115	309843.466	290479.820		ug/L	
	Ti	47	410.348	319.343		ug/L	
	Li	7	25722.529	25807.144		mg/L	

**QC Out Of Limits (only failed QC will appear below)**

Measurement Type	Mass	Out of Limits Message
QC Std 2	Cr 53	CCV (CLC) is out of limits (+/- 10%)

**ELAN 6100 Quantitative Analysis - Summary Report**

User Name: User

**Sample ID: QC Std 4**

Sample Description:

Autosampler Position: 1

Sample Date/Time: Thursday, March 15, 2012 11:17:52

Dataset File: C:\Elandata\Dataset\EL120315\QC Std 4.027

Optimization File: C:\Elandata\Optimize\epa.dac

Method File: C:\Elandata\Method\EPA\2008.MTH + B,Sr,Sn,U,Br - 1 CAL STD DIMOCK.mth

Calibration File: C:\Elandata\System\EL120315.cal

Report Title: QUANTITATIVE ANALYSIS REPORT

analysis 200.8 or equivalent

**SITE: DIMOCK 1203001**

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Sample Unit	Conc. RSD
Be r	9	50.001	144.003	-0.280	ug/L	9.960
Liu	6	280663.946	281809.338		ug/L	
Li	6	278591.519	279716.379		ug/L	
Be	9	50.001	144.003	-0.328	ug/L	9.581
B	11	308.010	250.673	0.100	ug/L	169.503
Al	27	3185.025	2958.932	0.017	ug/L	63.128
Sc	45	587543.922	562754.764		ug/L	
V r	51	6115.549	6166.366	-0.031	ug/L	784.833
V u	51	132106.730	107078.035	1.956	ug/L	48.548
Cr r	52	11471.667	11412.241	-0.054	ug/L	89.862
Cr	53	43207.030	35642.987	6.112	ug/L	46.423
Mn	55	810.051	872.392	-0.008	ug/L	21.354
Co	59	1397.141	4048.773	-0.336	ug/L	2.278
Ni r	60	222.339	242.006	-0.017	ug/L	55.696
Ni	62	165.670	167.670	-0.036	ug/L	67.354
Cu r	63	499.021	532.690	-0.015	ug/L	46.815
Cu	65	247.340	246.340	-0.005	ug/L	110.632
Zn r	66	637.366	722.375	-0.115	ug/L	8.002
Zn	67	3206.370	2489.100	2.494	ug/L	50.229
Zn	68	747.044	773.380	-0.088	ug/L	69.730
Ge	72	165916.385	155886.169		ug/L	
As r	75	70.238	43.200	0.016	ug/L	823.650
As u	75	5124.092	4405.305	0.306	ug/L	56.148
Se r	82	9.722	5.186	0.027	ug/L	388.856
Se	77	1542.756	1356.163	0.823	ug/L	29.313
Sr	88	262.007	195.338	0.003	ug/L	30.687
Ag r	107	71.334	75.334	-0.001	ug/L	145.779
Ag	109	55.667	51.001	0.000	ug/L	936.302
Cd r	111	273.484	301.429	-0.025	ug/L	72.481
Cd	106	-3879.979	-3560.056	-0.875	ug/L	18.258
Cd	108	-4074.253	-3778.984	-0.871	ug/L	48.117
Cd	114	51.601	85.078	-0.009	ug/L	39.353
Cd u	111	23.667	40.667	-0.011	ug/L	10.482
In	115	305175.636	290479.820		ug/L	
Sb r	123	57.455	58.455	-0.001	ug/L	81.159
Sb	121	72.334	88.001	-0.004	ug/L	107.366

Report Date/Time: Thursday, March 15, 2012 11:28:56

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Sample ID: QC Std 4

	Sn	118	251.007	158.670	<b>0.015</b>	ug/L	32.780
	Sn r	120	331.010	208.338	<b>0.015</b>	ug/L	34.698
	Ba r	137	489.354	1262.783	<b>-0.309</b>	ug/L	1.191
	Ba	135	273.008	715.040	<b>-0.306</b>	ug/L	1.410
>	Tb	159	342910.875	317043.234		ug/L	
	Tl r	205	4196.869	6618.579	<b>-0.214</b>	ug/L	21.270
	Tl	203	1716.211	2735.180	<b>-0.212</b>	ug/L	21.288
	U	238	3273.729	9438.882	<b>-0.342</b>	ug/L	1.620
	Pb	208	3830.076	9191.574	<b>-0.347</b>	ug/L	1.430
	Kr	83	185.337	170.337		ug/L	
	Cl	35	30565171.225	29074374.350		mg/L	
	C	12	398313.164	382237.862		mg/L	
	Y	89	318471.299	307756.903		ug/L	
>	Br	79	2842.220	2146.654	<b>1.963</b>	ug/L	5.996
	Br	81	15023.823	13971.490	<b>0.552</b>	ug/L	423.653
>	Ge-1	72	165916.385	155886.169		ug/L	
	Ru	99	2.667	3.000		ug/L	
	Pd	105	3441.137	3193.362		ug/L	
	Ho	165	325060.805	302920.753		ug/L	
	Th	232	965.738	98.002	<b>0.054</b>	ug/L	19.074
>	Mo	95	246.006	188.004	<b>0.016</b>	ug/L	47.641
	Mo	97	146.336	119.335	<b>0.010</b>	ug/L	82.484
	Mo r	98	377.495	280.009	<b>0.016</b>	ug/L	52.140
	Rh	103	2578.124	7846.746		ug/L	
>	In-1	115	305175.636	290479.820		ug/L	
	Ti	47	324.343	319.343		ug/L	
	Li	7	25553.969	25807.144		mg/L	

**QC Out Of Limits (only failed QC will appear below)**

Measurement Type	Mass	Out of Limits Message
QC Std 4	V u	IBL (LCB) is out of limits ( +/- 0.400ug/L)
QC Std 4	Cr	IBL (LCB) is out of limits ( +/- 0.400ug/L)
QC Std 4	Zn	IBL (LCB) is out of limits ( +/- 0.400ug/L)
QC Std 4	Cd	IBL (LCB) is out of limits ( +/- 0.400ug/L)
QC Std 4	Cd	IBL (LCB) is out of limits ( +/- 0.400ug/L)
QC Std 4	Br	IBL (LCB) is out of limits ( +/- 0.400ug/L)
QC Std 4	Br	IBL (LCB) is out of limits ( +/- 0.400ug/L)

## ELAN 6100 Quantitative Analysis - Summary Report

User Name: User

**Sample ID: 1203001-11**

Sample Description: REG

Autosampler Position: 10

Sample Date/Time: Thursday, March 15, 2012 12:23:05

Dataset File: C:\Elandata\Dataset\EL120315\1203001-11.028

Optimization File: C:\Elandata\Optimize\epa.dac

Method File: C:\Elandata\Method\EPA\2008.MTH + B,Sr,Sn,U,Br - 1 CAL STD DIMOCK.mth

Calibration File: C:\Elandata\System\EL120315.cal

Report Title: QUANTITATIVE ANALYSIS REPORT

analysis 200.8 or equivalent

**SITE: DIMOCK 1203001**

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Sample Unit	Conc. RSD
Be r	9	0.000	144.003	-0.429	ug/L	
> Li u	6	165321.161	281809.338		ug/L	
L Li	6	164021.194	279716.379		ug/L	
> Be	9	0.000	144.003	-0.492	ug/L	0.000
B	11	5147.440	250.673	11.835	ug/L	2.048
Al	27	3334.423	2958.932	0.106	ug/L	8.853
> Sc	45	529328.220	562754.764		ug/L	
V r	51	3313.864	6166.366	-0.272	ug/L	9.854
Vu	51	10045.330	107078.035	-9.667	ug/L	0.568
Cr r	52	9804.676	11412.241	-0.127	ug/L	24.305
Cr	53	3293.405	35642.987	-34.137	ug/L	0.283
Mn	55	484.687	872.392	-0.031	ug/L	2.728
Co	59	51.001	4048.773	-0.495	ug/L	0.142
Ni r	60	253.673	242.006	0.016	ug/L	24.392
Ni	62	178.004	167.670	0.087	ug/L	34.793
Cu r	63	455.351	532.690	-0.014	ug/L	12.411
Cu	65	201.671	246.340	-0.018	ug/L	47.827
Zn r	66	1017.078	722.375	0.241	ug/L	27.228
Zn	67	517.689	2489.100	-9.446	ug/L	1.249
Zn	68	799.050	773.380	-0.002	ug/L	1038.148
> Ge	72	161455.483	155886.169		ug/L	
As r	75	118.848	43.200	0.052	ug/L	80.340
As u	75	132.669	4405.305	-3.188	ug/L	0.044
Se r	82	29.160	5.186	0.157	ug/L	89.920
Se	77	14.576	1356.163	-11.808	ug/L	0.783
Sr	88	21566.409	195.338	1.208	ug/L	1.656
Ag r	107	45.001	75.334	-0.004	ug/L	6.280
Ag	109	37.000	51.001	-0.002	ug/L	26.981
Cd r	111	277.658	301.429	-0.015	ug/L	142.844
Cd	106	-3791.035	-3560.056	-1.417	ug/L	32.795
Cd	108	-3983.526	-3778.984	-1.651	ug/L	24.513
Cd	114	76.031	85.078	-0.002	ug/L	76.835
Cd u	111	32.334	40.667	-0.005	ug/L	157.942
> In	115	291705.845	290479.820		ug/L	
Sb r	123	53.249	58.455	-0.001	ug/L	54.243
Sb	121	71.001	88.001	-0.003	ug/L	57.611

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Sample ID: 1203001-11

	Sn	118	148.003	158.670	-0.002	ug/L	116.033
	Sn r	120	214.338	208.338	0.001	ug/L	494.901
	Ba r	137	259.007	1262.783	-0.383	ug/L	1.503
	Ba	135	148.670	715.040	-0.376	ug/L	1.959
>	Tb	159	319063.337	317043.234		ug/L	
	Tl r	205	254.340	6618.579	-0.499	ug/L	0.655
	Tl	203	115.002	2735.180	-0.485	ug/L	0.402
	U	238	16.667	9438.882	-0.503	ug/L	0.030
>	Pb	208	476.010	9191.574	-0.536	ug/L	0.352
	Kr	83	96.668	170.337		ug/L	
	Cl	35	104798.537	29074374.350		mg/L	
	C	12	543130.779	382237.862		mg/L	
	Y	89	298413.163	307756.903		ug/L	
>	Br	79	9761.959	2146.654	27.267	ug/L	4.617
	Br	81	21465.122	13971.490	25.538	ug/L	3.307
>	Ge-1	72	161455.483	155886.169		ug/L	
	Ru	99	1.000	3.000		ug/L	
	Pd	105	3367.104	3193.362		ug/L	
	Ho	165	302043.277	302920.753		ug/L	
>	Th	232	98.002	98.002	0.000	8918485030117044200.000	
>	Mo	95	245.006	188.004	0.019	ug/L	42.983
	Mo	97	141.336	119.335	0.011	ug/L	71.731
	Mo r	98	388.866	280.009	0.022	ug/L	27.072
	Rh	103	10.333	7846.746		ug/L	
>	In-1	115	291705.845	290479.820		ug/L	
	Tl	47	193.338	319.343		ug/L	
	Li	7	16029.187	25807.144		mg/L	

**QC Out Of Limits (only failed QC will appear below)**

Measurement Type	Mass	Out of Limits Message
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## ELAN 6100 Quantitative Analysis - Summary Report

User Name: User

**Sample ID: 1203001-12**

Sample Description:

Autosampler Position: 18

Sample Date/Time: Thursday, March 15, 2012 12:28:30

Dataset File: C:\Elandata\Dataset\EL120315\1203001-12.029

Optimization File: C:\Elandata\Optimize\epa.dac

Method File: C:\Elandata\Method\EPA2008.MTH + B,Sr,Sn,U,Br - 1 CAL STD DIMOCK.mth

Calibration File: C:\Elandata\System\EL120315.cal

Report Title: QUANTITATIVE ANALYSIS REPORT

analysis 200.8 or equivalent

**SITE: DIMOCK 1203001**

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Sample Unit	Conc. RSD
Be r	9	1.000	144.003	-0.425	ug/L	0.979
> Li u	6	206774.887	281809.338		ug/L	
L Li	6	203586.635	279716.379		ug/L	
> Be	9	1.000	144.003	-0.489	ug/L	0.651
> B	11	10413.151	250.673	21.477	ug/L	2.466
> Al	27	18459.599	2958.932	2.578	ug/L	16.733
> Sc	45	602323.044	562754.764		ug/L	
> V r	51	11810.325	6166.366	0.502	ug/L	5.342
> Vu	51	10865.444	107078.035	-9.720	ug/L	0.189
> Cr r	52	34854.153	11412.241	2.721	ug/L	2.333
> Cr	53	3606.215	35642.987	-34.277	ug/L	0.330
> Mn	55	341548.864	872.392	27.584	ug/L	1.604
> Co	59	924.732	4048.773	-0.395	ug/L	1.150
> Ni r	60	2225.678	242.006	1.088	ug/L	3.969
> Ni	62	198.338	167.670	0.071	ug/L	47.768
> Cu r	63	6659.616	532.690	1.592	ug/L	2.804
> Cu	65	3109.993	246.340	1.537	ug/L	1.624
> Zn r	66	2167.994	722.375	1.126	ug/L	1.795
> Zn	67	3306.077	2489.100	2.174	ug/L	13.412
> Zn	68	10729.591	773.380	10.844	ug/L	4.582
> Ge	72	174908.122	155886.169		ug/L	
> As r	75	4211.631	43.200	2.693	ug/L	4.335
> As u	75	4314.586	4405.305	-0.417	ug/L	20.213
> Se r	82	94.504	5.186	0.541	ug/L	16.088
> Se	77	118.254	1356.163	-11.005	ug/L	1.574
> Sr	88	24745285.902	195.338	1291.741	ug/L	0.962
> Ag r	107	58.001	75.334	-0.003	ug/L	14.186
> Ag	109	48.667	51.001	-0.001	ug/L	92.977
> Cd r	111	292.640	301.429	-0.023	ug/L	38.532
> Cd	106	-5393.738	-3560.056	-8.591	ug/L	13.095
> Cd	108	-5564.251	-3778.984	-10.885	ug/L	11.850
> Cd	114	64.034	85.078	-0.007	ug/L	29.751
> Cd u	111	27.334	40.667	-0.010	ug/L	8.022
> In	115	322161.983	290479.820		ug/L	
> Sb r	123	366.298	58.455	0.066	ug/L	7.403
L Sb	121	449.351	88.001	0.059	ug/L	3.691

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Sample ID: 1203001-12

	Sn	118	210.005	158.670	<b>0.007</b>	ug/L	71.472
	Sn r	120	311.343	208.338	<b>0.011</b>	ug/L	28.779
	Ba r	137	651186.313	1262.783	<b>224.460</b>	ug/L	1.107
	Ba	135	392226.833	715.040	<b>235.231</b>	ug/L	0.649
>	Tb	159	349490.351	317043.234		ug/L	
	Tl r	205	320.010	6618.579	<b>-0.496</b>	ug/L	0.177
	Tl	203	134.336	2735.180	<b>-0.484</b>	ug/L	0.242
	U	238	46833.611	9438.882	<b>1.765</b>	ug/L	1.235
	Pb	208	23771.470	9191.574	<b>0.760</b>	ug/L	2.207
	Kr	83	95.668	170.337		ug/L	
	Cl	35	213149.697	29074374.350		mg/L	
	C	12	3542611.207	382237.862		mg/L	
	Y	89	332383.112	307756.903		ug/L	
>	Br	79	6187.221	2146.654	<b>12.613</b>	ug/L	8.670
	Br	81	19043.403	13971.490	<b>11.350</b>	ug/L	8.326
>	Ge-1	72	174908.122	155886.169		ug/L	
	Ru	99	0.667	3.000		ug/L	
	Pd	105	4709.822	3193.362		ug/L	
	Ho	165	336156.731	302920.753		ug/L	
	Th	232	189.338	98.002	<b>0.006</b>	ug/L	37.457
>	Mo	95	1405.809	188.004	<b>0.365</b>	ug/L	5.546
	Mo	97	848.389	119.335	<b>0.338</b>	ug/L	4.120
	Mo r	98	2264.917	280.009	<b>0.365</b>	ug/L	1.393
	Rh	103	628.365	7846.746		ug/L	
>	In-1	115	322161.983	290479.820		ug/L	
	Ti	47	1016.744	319.343		ug/L	
	Li	7	39312.613	25807.144		mg/L	

**QC Out Of Limits (only failed QC will appear below)**

Measurement Type	Mass	Out of Limits Message
Ba r 137 Upper, S, EEE	Ba r 137	Sample greater than CLM3

**ELAN 6100 Quantitative Analysis - Summary Report**

User Name: User

**Sample ID: QC Std 6**

Sample Description:

Autosampler Position: 9

Sample Date/Time: Thursday, March 15, 2012 12:40:19

Dataset File: C:\Elandata\Dataset\EL120315\QC Std 6.031

Optimization File: C:\Elandata\Optimize\elqa.dac

Method File: C:\Elandata\Method\EPA\2008.MTH + B,Sr,Sn,U,Br - 1 CAL STD DIMOCK.mth

Calibration File: C:\Elandata\System\EL120315.cal

Report Title: QUANTITATIVE ANALYSIS REPORT

analysis 200.8 or equivalent

**SITE: DIMOCK 1203001**

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Sample Unit	Conc. RSD
Be r	9	239.006	144.003	0.220	ug/L	34.858
> Li u	6	309608.698	281809.338		ug/L	
L Li	6	307396.162	279716.379		ug/L	
T Be	9	239.006	144.003	0.297	ug/L	34.868
B	11	465.685	250.673	0.450	ug/L	16.096
Al	27	5983.387	2958.932	0.507	ug/L	1.701
> Sc	45	583839.524	562754.764		ug/L	
V r	51	8749.905	6166.366	0.234	ug/L	50.217
Vu	51	114889.985	107078.035	0.360	ug/L	109.816
Cr r	52	16330.815	11412.241	0.558	ug/L	6.607
Cr	53	37451.652	35642.987	0.453	ug/L	393.254
Mn	55	6566.201	872.392	0.473	ug/L	5.181
Co	59	6467.116	4048.773	0.271	ug/L	5.194
Ni r	60	1075.419	242.006	0.471	ug/L	10.508
Ni	62	283.008	167.670	0.423	ug/L	3.506
Cu r	63	2435.076	532.690	0.508	ug/L	4.130
Cu	65	1219.776	246.340	0.538	ug/L	3.817
Zn r	66	1202.773	722.375	0.364	ug/L	11.256
Zn	67	2155.662	2489.100	-2.362	ug/L	57.064
Zn	68	1087.088	773.380	0.287	ug/L	3.886
> Ge	72	168411.038	155886.169		ug/L	
As r	75	232.804	43.200	0.125	ug/L	42.786
As u	75	6409.400	4405.305	1.139	ug/L	6.995
Se r	82	75.138	5.186	0.438	ug/L	39.891
Se	77	1975.521	1356.163	4.158	ug/L	3.744
Sr	88	8702.007	195.338	0.460	ug/L	1.460
Ag r	107	3402.120	75.334	0.439	ug/L	2.245
Ag	109	3179.022	51.001	0.432	ug/L	0.974
Cd r	111	1057.300	301.429	0.411	ug/L	6.558
Cd	106	-3613.300	-3560.056	1.461	ug/L	75.397
Cd	108	-3840.208	-3778.984	2.026	ug/L	65.616
Cd	114	1817.643	85.078	0.418	ug/L	3.289
Cd u	111	803.383	40.667	0.425	ug/L	2.722
> In	115	314285.728	290479.820		ug/L	
Sb r	123	1935.299	58.455	0.418	ug/L	1.147
Sb	121	2549.448	88.001	0.422	ug/L	2.103

Report Date/Time: Thursday, March 15, 2012 12:43:39

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Sample ID: QC Std 6

	Sn	118	2507.767	158.670	0.448	ug/L	5.157
	Sn r	120	3406.121	208.338	0.445	ug/L	4.610
	Ba r	137	2024.954	1262.783	0.229	ug/L	5.213
	Ba	135	1215.775	715.040	0.269	ug/L	13.078
>	Tb	159	344213.621	317043.234		ug/L	
	Tl r	205	10892.816	6618.579	0.269	ug/L	12.375
	Tl	203	4477.681	2735.180	0.258	ug/L	13.788
	U	238	15659.415	9438.882	0.267	ug/L	8.080
	Pb	208	14955.169	9191.574	0.282	ug/L	11.585
	Kr	83	99.335	170.337		ug/L	
	Cl	35	30087340.144	29074374.350		mg/L	
	C	12	461216.213	382237.862		mg/L	
	Y	89	319984.291	307756.903		ug/L	
>	Br	79	2940.925	2146.654	2.158	ug/L	6.832
	Br	81	15690.480	13971.490	2.089	ug/L	14.063
>	Ge-1	72	168411.038	155886.169		ug/L	
	Ru	99	2.667	3.000		ug/L	
	Pd	105	3288.070	3193.362		ug/L	
	Ho	165	326994.365	302920.753		ug/L	
	Th	232	7977.561	98.002	0.488	ug/L	7.177
>	Mo	95	1527.834	188.004	0.414	ug/L	4.176
	Mo	97	952.735	119.335	0.399	ug/L	3.605
	Mo r	98	2398.250	280.009	0.401	ug/L	2.524
>	Rh	103	5148.774	7846.746		ug/L	
>	In-1	115	314285.728	290479.820		ug/L	
	Ti	47	351.012	319.343		ug/L	
	Li	7	27281.575	25807.144		mg/L	

#### QC Out Of Limits (only failed QC will appear below)

Measurement Type	Mass	Out of Limits Message
QC Std 6	Zn 67	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	As r 75	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	As u 75	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	Cd 106	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	Cd 108	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	Br 79	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)
QC Std 6	Br 81	LCV (DC1, TV 0.4) is out of limits ( +/- 50%)